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TOTAL SOLAR ECLIPSE OF 23 OCTOBER 1976

by

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and

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GENERAL INFORMATION

The path of the total phase of the solar eclipse of 23 October 1976 touches the earth at sunrise in northwestern Tanzania, south of Lake Victoria, at $3^h\ 36^m$ U. T. Traveling east southeast, the path passes over Zanzibar Island at $3^h\ 37^m$ U. T. where the duration is $2^m\ 24^s$ and the width of the path is 98 miles. Proceeding southeast across the Indian Ocean, the path passes over Cerf Island and the Farquhar Group at $3^h\ 44^m$ U. T. At $5^h\ 14^m$ U. T., in the central Indian Ocean, duration of totality reaches $4^m\ 50^s.4$ and the width of path is 125 miles. By $6^h\ 07^m$ U. T. the path is traveling nearly due east, south of eastern and central Australia. It crosses southern portions of South Australia, Victoria, and New South Wales. The path crosses the coast between Cape Thomas and Cape Nelson at $6^h\ 37^m.4$ U. T., where the duration is $3^m\ 11^s$ and width of path is 109 miles, enters Victoria at $6^h\ 38^m$ U. T., passes over Melbourne at $6^h\ 40^m.8$ U. T., enters New South Wales at $6^h\ 43^m.6$ U. T., and leaves the east coast near Merrimbula at $6^h\ 44^m.2$ U. T., where the duration of totality is $2^m\ 45^s$, and the width of path is 104 miles. Proceeding slightly north of east into the Pacific Ocean, the path leaves the earth at sunset north of New Zealand.

Partial phases of the eclipse of greater or less magnitude, decreasing with the distance from the path of total phase, will be visible over eastern and southern Africa, Madagascar Island, portions of Saudi Arabia, the southern tip of India, Sri Lanka, the Indian Ocean except extreme northern parts, portions of Indonesia, all of Australia and New Zealand, and portions of Antarctica.

The predictions in this *Circular* are derived from the basic data in the 1976 *American Ephemeris and Nautical Almanac.* The arguments are in Universal Time, and the longitudes east of Greenwich are negative. The solar ephemeris is referred to the same equinox as the lunar ephemeris by applying a provisional correction of $1^s.34$. The value of ΔT used in the computations is $45^s.97$ ($47^s.31 - 1^s.34$).

The value of 0.2724880 for **k** has been used in these calculations except for the calculations of duration on the central line, where the value 0.272281 has been used by way of applying an approximate correction for the irregularities of the lunar limb. The duration tabulated in local circumstances is derived from the second and third contacts.

GENERAL INFORMATION *(Continued)*

In the local circumstances, the angle P is the position angle of the point of contact, measured eastward from the north point of the solar limb, and the angle V is the position angle of the point of contact, measured eastward from the vertical circle.

The circumstances of the eclipse were plotted by the Nautical Almanac Office on portions of the JNC Jet Navigation Charts of the Defense Mapping Agency Hydrographic Center and the IMW International Map of the World of the Commonwealth of Australia Division of National Mapping.

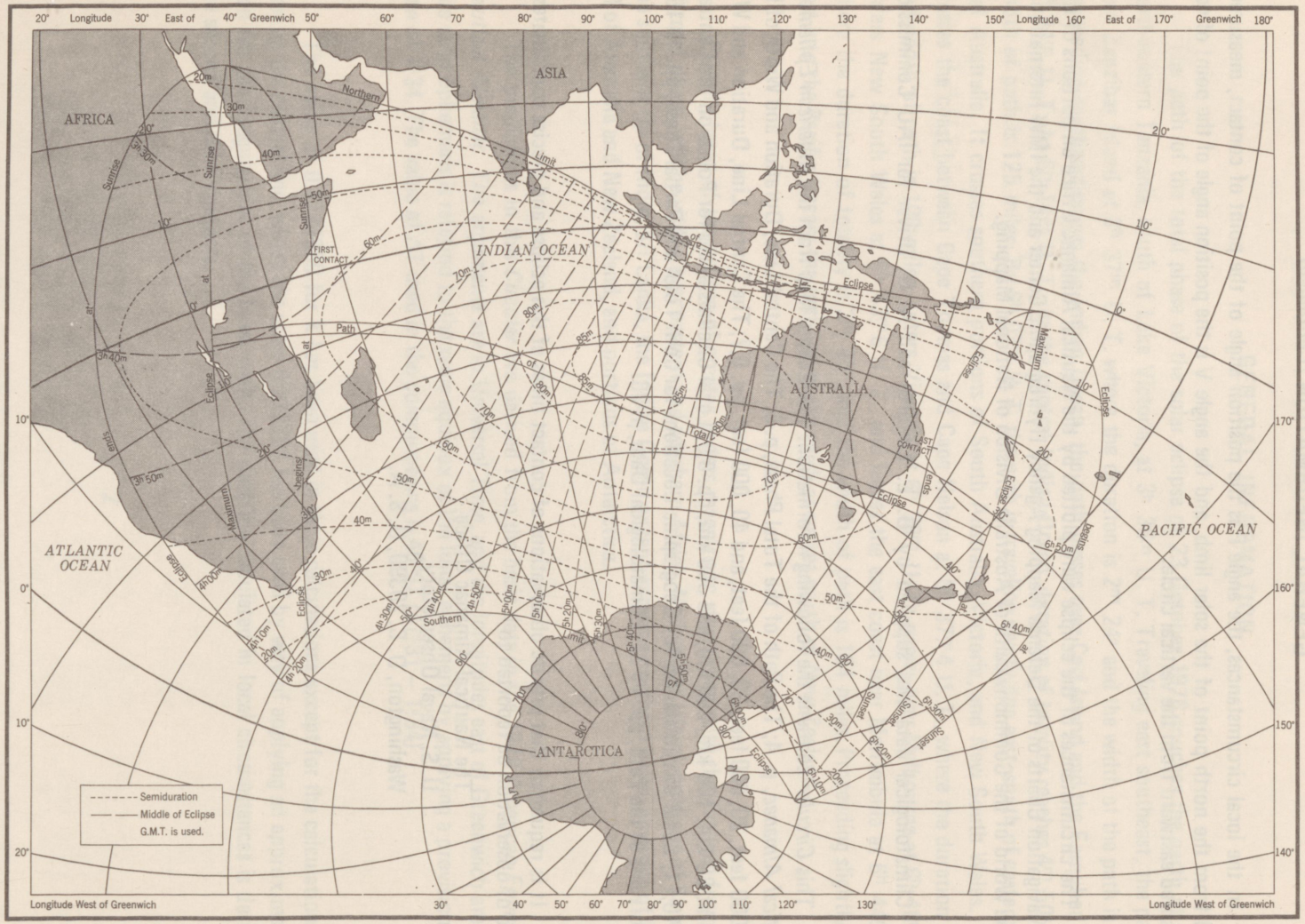
Climatological data was supplied by D. L. Linforth and A. G. Driver for IAU Commission 10.

This *Circular* contains the following information: The Eclipse Map from the *American Ephemeris and Nautical Almanac*, p. 4; The Path of the Total Phase, p. 5; The Central Line, Duration and Width of Path at 10, 000 feet, 20, 000 feet, 30, 000 feet, and 40, 000 feet, pp. 6,7; The Central Line, Duration and Width of Path at 80 km, 100 km, 200 km, and 300 km, pp. 8,9; Local Circumstances for Points on the Central Line, pp. 10,11; Local Circumstances for Geographic Locations for both Total and Partial Phase, pp. 12-15; Maps of Portions of the Path, pp. 16-22; Climatological Data, p. 23.

It is requested that precise observations of contact times of this eclipse and precise coordinates of the place of observation be reported to

The Nautical Almanac Office,
U. S. Naval Observatory,
Washington, D. C. 20390, U. S. A.

TOTAL SOLAR ECLIPSE OF 1976 OCTOBER 23



PATH OF THE TOTAL PHASE

Universal Time	Northern Limit		Central Line		Southern Limit	
	Latitude	Longitude	Latitude	Longitude	Latitude	Longitude
h m	° ′	° ′	° ′	° ′	° ′	° ′
Limit	- 3 28	- 31 35	- 4 05	- 31 21	- 4 43	- 31 06
3 36	- 4 56.7	- 38 17.3	- 5 00.4	- 35 33.1	.. .. .	... .. .
37	5 46.4	41 29.2	6 03.2	39 45.0	- 6 15.0	- 37 40.7
38	6 25.0	43 47.0	6 46.2	42 21.0	7 04.8	40 45.7
39	6 58.4	45 39.1	7 22.2	44 22.7	7 44.1	43 00.3
3 40	- 7 28.6	- 47 15.3	- 7 54.1	- 46 05.2	- 8 18.1	- 44 50.5
42	8 22.6	49 57.7	8 50.5	48 55.2	9 17.3	47 49.6
44	9 11.0	52 14.0	9 40.6	51 16.1	10 09.3	50 15.8
46	9 55.7	54 12.9	10 26.5	53 18.2	10 56.7	52 21.4
48	10 37.5	55 59.2	11 09.5	55 06.8	11 40.8	54 12.7
3 50	-11 17.2	- 57 36.0	-11 50.1	- 56 45.4	-12 22.3	- 55 53.3
55	12 49.3	61 07.5	13 24.0	60 20.1	13 58.3	59 31.5
4 00	-14 13.9	- 64 08.8	-14 50.2	- 63 23.6	-15 26.0	- 62 37.2
05	15 33.1	66 49.5	16 10.6	66 05.9	16 47.8	65 21.3
10	16 48.0	69 15.4	17 26.7	68 33.2	18 05.0	67 49.9
15	17 59.5	71 30.3	18 39.2	70 49.1	19 18.6	70 07.1
20	19 08.0	73 36.6	19 48.7	72 56.5	20 29.1	72 15.6
25	20 13.9	75 36.5	20 55.6	74 57.3	21 37.0	74 17.5
4 30	-21 17.6	- 77 31.3	-22 00.1	- 76 53.1	-22 42.5	- 76 14.3
35	22 19.2	79 22.2	23 02.6	78 45.1	23 45.8	78 07.3
40	23 18.9	81 10.4	24 03.1	80 34.3	24 47.2	79 57.5
45	24 16.9	82 56.5	25 01.9	82 21.5	25 46.8	81 45.8
50	25 13.1	84 41.4	25 58.9	84 07.5	26 44.6	83 33.0
55	26 07.8	86 25.6	26 54.3	85 52.9	27 40.8	85 19.7
5 00	-27 00.8	- 88 09.8	-27 48.1	- 87 38.5	-28 35.3	- 87 06.6
05	27 52.3	89 54.6	28 40.3	89 24.7	29 28.3	88 54.3
10	28 42.3	91 40.5	29 31.0	91 12.1	30 19.7	90 43.3
15	29 30.7	93 28.0	30 20.0	93 01.2	31 09.4	92 34.1
20	30 17.6	95 17.6	31 07.5	94 52.7	31 57.6	94 27.4
25	31 02.9	97 10.0	31 53.4	96 47.0	32 44.0	96 23.7
5 30	-31 46.5	- 99 05.7	-32 37.5	- 98 44.7	-33 28.7	- 98 23.7
35	32 28.4	101 05.2	33 19.8	100 46.5	34 11.5	100 27.9
40	33 08.4	103 09.3	34 00.3	102 53.1	34 52.4	102 37.0
45	33 46.4	105 18.7	34 38.7	105 05.1	35 31.1	104 51.8
50	34 22.4	107 34.2	35 14.8	107 23.5	36 07.6	107 13.3
55	34 56.0	109 56.8	35 48.6	109 49.3	36 41.5	109 42.3
6 00	-35 27.0	-112 27.5	-36 19.7	-112 23.5	-37 12.6	-112 20.2
05	35 55.2	115 07.9	36 47.8	115 07.6	37 40.5	115 08.2
10	36 20.2	117 59.5	37 12.4	118 03.3	38 04.8	118 08.3
15	36 41.3	121 04.7	37 33.1	121 13.0	38 25.0	121 22.7
20	36 58.1	124 26.2	37 49.1	124 39.6	38 40.2	124 54.6
25	37 09.4	128 08.4	37 59.3	128 27.5	38 49.3	128 48.6
6 30	-37 13.8	-132 17.5	-38 02.3	-132 43.2	-38 50.7	-133 11.4
35	37 09.1	137 03.8	37 55.5	137 37.8	38 41.5	138 14.7
40	36 50.9	142 47.0	37 34.1	143 32.3	38 16.7	144 21.4
6 42	-36 38.0	-145 29.1	-37 19.3	-146 20.6	-37 59.9	-147 16.6
44	36 20.2	148 32.9	36 59.1	149 32.7	37 37.0	150 38.0
46	35 55.2	152 09.5	36 30.7	153 21.8	37 04.6	154 41.6
6 47	-35 38.7	-154 16.9	-36 11.7	-155 38.7	-36 42.4	-157 10.3
48	35 17.8	156 44.7	35 47.2	158 21.0	36 13.0	160 12.2
49	34 49.9	159 46.7	35 12.6	161 50.7	-35 27.5	-164 28.6
50	34 05.8	164 07.6	34 02.2	168 13.0	.. .. .	... .. .
Limit	-32 48	-170 57	-33 26	-171 15	-34 03	-171 34

CENTRAL LINE OF TOTAL PHASE

Universal Time	10,000 Feet		20,000 Feet		30,000 Feet		40,000 Feet	
	Latitude	Longitude	Latitude	Longitude	Latitude	Longitude	Latitude	Longitude
h m	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′
3 36	- 5 04.4	- 35 53.5	- 5 08.1	- 36 12.5	- 5 11.6	- 36 30.3	- 5 14.9	- 36 47.2
37	6 05.1	39 55.3	6 07.0	40 05.3	6 08.8	40 15.2	6 10.6	40 24.9
38	6 47.6	42 28.8	6 49.0	42 36.4	6 50.4	42 44.0	6 51.7	42 51.4
39	7 23.3	44 29.2	7 24.4	44 35.6	7 25.5	44 41.9	7 26.7	44 48.2
3 40	- 7 55.0	- 46 10.8	- 7 56.0	- 46 16.4	- 7 56.9	- 46 21.9	- 7 57.9	- 46 27.4
42	8 51.2	48 59.8	8 51.9	49 04.4	8 52.7	49 08.9	8 53.4	49 13.5
44	9 41.2	51 20.1	9 41.8	51 24.C	9 42.3	51 28.0	9 42.9	51 31.9
46	10 27.0	53 21.7	10 27.5	53 25.2	10 28.C	53 28.7	10 28.5	53 32.2
48	11 09.9	55 10.0	11 10.3	55 13.2	11 10.7	55 16.4	11 11.1	55 19.6
3 50	-11 50.4	- 56 48.3	-11 50.7	- 56 51.3	-11 51.1	- 56 54.2	-11 51.4	- 56 57.1
55	13 24.2	60 22.6	13 24.4	60 25.C	13 24.6	60 27.5	13 24.8	60 29.9
4 00	-14 50.3	- 63 25.7	-14 50.4	- 63 27.8	-14 50.5	- 63 29.9	-14 50.6	- 63 32.0
05	16 10.6	66 07.8	16 10.7	66 09.7	16 10.7	66 11.5	16 10.7	66 13.4
10	17 26.7	68 34.8	17 26.6	68 36.5	17 26.6	68 38.1	17 26.5	68 39.8
15	18 39.1	70 50.6	18 39.0	70 52.1	18 38.9	70 53.6	18 38.8	70 55.0
20	19 48.5	72 57.8	19 48.4	72 59.2	19 48.2	73 00.5	19 48.1	73 01.8
25	20 55.4	74 58.5	20 55.2	74 59.7	20 55.0	75 00.9	20 54.8	75 02.1
4 30	-21 59.9	- 76 54.2	-21 59.6	- 76 55.3	-21 59.4	- 76 56.4	-21 59.1	- 76 57.4
35	23 02.3	78 46.1	23 02.0	78 47.C	23 01.7	78 48.0	23 01.4	78 48.9
40	24 02.8	80 35.1	24 02.5	80 36.0	24 02.1	80 36.8	24 01.8	80 37.7
45	25 01.5	82 22.2	25 01.1	82 23.C	25 00.8	82 23.7	25 00.4	82 24.5
50	25 58.5	84 08.1	25 58.1	84 08.8	25 57.7	84 09.4	25 57.3	84 10.1
55	26 53.8	85 53.5	26 53.4	85 54.C	26 53.0	85 54.6	26 52.5	85 55.1
5 00	-27 47.6	- 87 38.9	-27 47.1	- 87 39.4	-27 46.7	- 87 39.8	-27 46.2	- 87 40.3
05	28 39.8	89 25.0	28 39.3	89 25.4	28 38.8	89 25.7	28 38.3	89 26.1
10	29 30.4	91 12.3	29 29.9	91 12.6	29 29.4	91 12.8	29 28.8	91 13.1
15	30 19.5	93 01.4	30 18.9	93 01.5	30 18.4	93 01.7	30 17.8	93 01.8
20	31 07.0	94 52.7	31 06.4	94 52.7	31 05.8	94 52.8	31 05.2	94 52.8
25	31 52.8	96 46.9	31 52.2	96 46.8	31 51.6	96 46.8	31 50.9	96 46.7
5 30	-32 36.9	- 98 44.5	-32 36.3	- 98 44.3	-32 35.6	- 98 44.2	-32 35.0	- 98 44.0
35	33 19.2	100 46.2	33 18.5	100 45.9	33 17.9	100 45.6	33 17.2	100 45.3
40	33 59.6	102 52.6	33 58.9	102 52.2	33 58.3	102 51.8	33 57.6	102 51.3
45	34 38.0	105 04.6	34 37.3	105 04.C	34 36.6	105 03.4	34 35.9	105 02.8
50	35 14.1	107 22.8	35 13.4	107 22.1	35 12.8	107 21.4	35 12.1	107 20.6
55	35 47.9	109 48.4	35 47.2	109 47.5	35 46.5	109 46.6	35 45.8	109 45.7
6 00	-36 19.0	-112 22.4	-36 18.3	-112 21.3	-36 17.6	-112 20.3	-36 16.8	-112 19.2
05	36 47.1	115 06.3	36 46.3	115 05.C	36 45.6	115 03.8	36 44.9	115 02.5
10	37 11.7	118 01.8	37 11.0	118 00.3	37 10.3	117 58.9	37 09.6	117 57.4
15	37 32.4	121 11.2	37 31.7	121 09.5	37 31.0	121 07.7	37 30.3	121 06.0
20	37 48.4	124 37.5	37 47.7	124 35.5	37 47.1	124 33.5	37 46.4	124 31.4
25	37 58.7	128 25.1	37 58.1	128 22.7	37 57.4	128 20.3	37 56.8	128 17.9
6 30	-38 01.7	-132 40.4	-38 01.2	-132 37.5	-38 00.6	-132 34.6	-38 00.0	-132 31.8
35	37 55.0	137 34.3	37 54.5	137 30.8	37 54.1	137 27.3	37 53.6	137 23.8
40	37 33.8	143 27.9	37 33.5	143 23.4	37 33.2	143 19.0	37 32.9	143 14.6
6 42	-37 19.1	-146 15.5	-37 19.0	-146 10.5	-37 18.8	-146 05.5	-37 18.6	-146 00.5
44	36 59.1	149 26.8	36 59.1	149 21.0	36 59.1	149 15.2	36 59.1	149 09.4
46	36 31.0	153 14.6	36 31.3	153 07.4	36 31.6	153 00.3	36 31.8	152 53.3
6 47	-36 12.2	-155 30.4	-36 12.7	-155 22.2	-36 13.2	-155 14.1	-36 13.6	-155 06.0
48	35 48.0	158 11.0	35 48.9	158 01.1	35 49.7	157 51.3	35 50.5	157 41.7
49	35 14.2	161 37.0	35 15.8	161 23.7	35 17.3	161 10.7	35 18.8	160 57.9
50	-34 08.9	-167 34.6	-34 14.5	-167 01.9	-34 19.3	-166 32.8	-34 23.6	-166 06.5

DURATION OF TOTAL PHASE AND WIDTH OF PATH ON CENTRAL LINE

Universal Time	10,000 Feet		20,000 Feet		30,000 Feet		40,000 Feet	
	Duration	Width of Path	Duration	Width of Path	Duration	Width of Path	Duration	Width of Path
h m	m s	mi	m s	mi	m s	mi	m s	mi
3 36	2 12.8	95	2 13.5	95	2 14.1	96	2 14.6	96
37	2 21.7	99	2 22.0	99	2 22.4	99	2 22.7	99
38	2 27.7	102	2 28.0	102	2 28.3	102	2 28.6	102
39	2 32.7	103	2 32.9	103	2 33.2	103	2 33.4	103
3 40	2 37.1	105	2 37.3	105	2 37.5	105	2 37.8	105
42	2 44.8	107	2 45.0	107	2 45.2	107	2 45.4	107
44	2 51.6	109	2 51.7	109	2 51.9	110	2 52.1	110
46	2 57.7	111	2 57.8	111	2 58.0	111	2 58.2	111
48	3 03.3	113	3 03.5	113	3 03.7	113	3 03.8	113
3 50	3 08.7	114	3 08.8	114	3 09.0	114	3 09.1	114
55	3 20.8	117	3 20.9	117	3 21.1	117	3 21.2	117
4 00	3 31.6	119	3 31.7	119	3 31.8	119	3 32.0	119
05	3 41.4	121	3 41.5	121	3 41.7	121	3 41.8	122
10	3 50.4	123	3 50.5	123	3 50.6	122	3 50.8	122
15	3 58.6	124	3 58.7	124	3 58.8	124	3 59.0	124
20	4 06.1	125	4 06.2	125	4 06.4	125	4 06.5	125
25	4 13.0	125	4 13.1	125	4 13.3	125	4 13.4	125
4 30	4 19.2	126	4 19.4	125	4 19.5	125	4 19.6	125
35	4 24.8	126	4 25.0	126	4 25.1	126	4 25.2	126
40	4 29.8	126	4 29.9	126	4 30.1	126	4 30.2	126
45	4 34.2	126	4 34.3	126	4 34.4	126	4 34.6	126
50	4 37.9	126	4 38.0	126	4 38.1	126	4 38.3	126
55	4 40.9	126	4 41.1	126	4 41.2	126	4 41.3	126
5 00	4 43.4	126	4 43.5	126	4 43.6	126	4 43.8	126
05	4 45.1	126	4 45.2	126	4 45.4	126	4 45.5	126
10	4 46.2	125	4 46.3	125	4 46.5	125	4 46.6	125
15	4 46.6	125	4 46.7	125	4 46.9	125	4 47.0	125
20	4 46.3	125	4 46.5	125	4 46.6	125	4 46.7	125
25	4 45.3	125	4 45.5	125	4 45.6	125	4 45.8	125
5 30	4 43.7	124	4 43.8	124	4 43.9	124	4 44.1	124
35	4 41.3	124	4 41.4	124	4 41.5	124	4 41.7	124
40	4 38.2	123	4 38.3	123	4 38.4	123	4 38.6	123
45	4 34.4	122	4 34.5	122	4 34.6	122	4 34.8	122
50	4 29.8	121	4 30.0	121	4 30.1	121	4 30.2	122
55	4 24.6	121	4 24.7	121	4 24.9	121	4 25.0	121
6 00	4 18.6	120	4 18.7	120	4 18.9	120	4 19.0	120
05	4 11.9	119	4 12.0	119	4 12.2	119	4 12.3	119
10	4 04.4	117	4 04.5	117	4 04.7	117	4 04.8	118
15	3 56.1	117	3 56.3	117	3 56.4	117	3 56.6	117
20	3 47.0	115	3 47.2	115	3 47.3	115	3 47.5	115
25	3 37.0	113	3 37.2	113	3 37.3	114	3 37.5	114
6 30	3 26.0	112	3 26.1	112	3 26.3	112	3 26.4	112
35	3 13.6	109	3 13.8	109	3 13.9	110	3 14.1	110
40	2 59.4	107	2 59.6	107	2 59.8	107	3 00.0	107
6 42	2 53.0	105	2 53.2	106	2 53.4	106	2 53.6	106
44	2 45.9	104	2 46.1	104	2 46.3	104	2 46.5	104
46	2 37.8	102	2 38.0	102	2 38.2	102	2 38.5	102
6 47	2 33.1	101	2 33.4	101	2 33.6	101	2 33.9	101
48	2 27.8	99	2 28.1	99	2 28.4	99	2 28.7	99
49	2 21.2	98	2 21.6	98	2 22.0	98	2 22.4	98
50	2 10.5	94	2 11.4	94	2 12.3	94	2 13.0	95

CENTRAL LINE OF TOTAL PHASE

Universal Time	80 Km		100 Km		200 Km		300 Km	
	Latitude	Longitude	Latitude	Longitude	Latitude	Longitude	Latitude	Longitude
h m	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′
3 31	.. .. .	... .. .	.. .. .	... .. .	.. .. .	... .. .	- 4 15.7	- 37 34.1
32	.. .. .	... .. .	.. .. .	... .. .	.. .. .	... .. .	5 12.9	41 20.7
33	.. .. .	... .. .	.. .. .	... .. .	- 4 53.8	- 38 32.1	5 53.8	43 48.0
3 34	.. .. .	... .. .	- 4 01.5	- 32 58.8	- 5 44.2	- 41 44.7	- 6 28.3	- 45 44.1
36	- 6 04.7	- 41 07.8	6 15.2	42 04.5	6 56.5	45 52.2	7 27.0	48 48.4
38	7 18.3	45 20.3	7 25.0	45 59.2	7 54.3	48 51.2	8 18.1	51 16.4
3 40	- 8 17.0	- 48 22.1	- 8 22.1	- 48 53.4	- 8 45.0	- 51 16.5	- 9 04.3	- 53 22.3
45	10 17.2	53 53.3	10 20.2	54 15.7	10 34.4	56 01.6	10 46.8	57 38.8
50	11 58.4	58 00.2	12 00.4	58 18.2	12 09.5	59 44.6	12 17.6	61 05.3
55	13 29.1	61 23.0	13 30.3	61 38.2	13 35.9	62 51.8	13 40.8	64 01.3
4 00	-14 52.8	- 64 18.0	-14 53.4	- 64 31.3	-14 56.2	- 65 35.5	-14 58.6	- 66 36.5
05	16 11.2	66 53.9	16 11.4	67 05.6	16 11.8	68 02.5	16 12.1	68 56.8
10	17 25.6	69 15.9	17 25.3	69 26.3	17 23.8	70 17.2	17 22.1	71 05.8
15	18 36.6	71 27.4	18 35.9	71 36.8	18 32.6	72 22.5	18 29.2	73 06.3
20	19 44.7	73 30.9	19 43.7	73 39.4	19 38.8	74 20.5	19 33.9	75 00.1
25	20 50.3	75 28.3	20 49.0	75 35.9	20 42.6	76 13.0	20 36.2	76 48.6
4 30	-21 53.7	- 77 20.9	-21 52.1	- 77 27.8	-21 44.3	- 78 01.1	-21 36.6	- 78 33.2
35	22 55.1	79 10.0	22 53.2	79 16.1	22 44.1	79 45.9	22 35.2	80 14.6
40	23 54.6	80 56.3	23 52.5	81 01.8	23 42.1	81 28.2	23 32.0	81 53.8
45	24 52.3	82 40.9	24 50.0	82 45.6	24 38.5	83 08.9	24 27.3	83 31.4
50	25 48.4	84 24.3	25 45.9	84 28.4	25 33.2	84 48.5	25 21.0	85 08.0
55	26 42.9	86 07.2	26 40.2	86 10.7	26 26.5	86 27.7	26 13.2	86 44.2
5 00	-27 35.9	- 87 50.1	-27 32.9	- 87 53.0	-27 18.2	- 88 07.0	-27 03.9	- 88 20.5
05	28 27.3	89 33.8	28 24.1	89 36.0	28 08.5	89 46.9	27 53.3	89 57.5
10	29 17.2	91 18.6	29 13.8	91 20.2	28 57.3	91 28.0	28 41.2	91 35.5
15	30 05.6	93 05.0	30 02.0	93 06.0	29 44.6	93 10.6	29 27.7	93 15.0
20	30 52.4	94 53.7	30 48.7	94 54.0	30 30.4	94 55.3	30 12.8	94 56.6
25	31 37.6	96 45.2	31 33.7	96 44.8	31 14.7	96 42.6	30 56.3	96 40.6
5 30	-32 21.2	- 98 39.9	-32 17.1	- 98 38.8	-31 57.4	- 98 33.1	-31 38.3	- 98 27.6
35	33 02.9	100 38.6	32 58.8	100 36.7	32 38.4	100 27.2	32 18.7	100 18.1
40	33 42.9	102 41.8	33 38.6	102 39.0	33 17.7	102 25.6	32 57.4	102 12.7
45	34 20.9	104 50.3	34 16.5	104 46.6	33 55.1	104 28.9	33 34.3	104 11.9
50	34 56.7	107 04.8	34 52.3	107 00.2	34 30.4	106 37.9	34 09.2	106 16.6
55	35 30.2	109 26.3	35 25.7	109 20.7	35 03.6	108 53.4	34 42.1	108 27.4
6 00	-36 01.2	-111 55.9	-35 56.6	-111 49.2	-35 34.3	-111 16.5	-35 12.6	-110 45.3
05	36 29.3	114 34.9	36 24.7	114 26.9	36 02.3	113 48.2	35 40.6	113 11.4
10	36 54.1	117 24.9	36 49.5	117 15.6	36 27.3	116 30.2	36 05.7	115 47.0
15	37 15.1	120 28.0	37 10.7	120 17.1	36 48.8	119 24.1	36 27.5	118 33.7
20	37 31.7	123 47.0	37 27.5	123 34.2	37 06.3	122 32.4	36 45.6	121 33.9
25	37 43.0	127 25.7	37 39.0	127 10.7	37 18.9	125 58.4	36 59.1	124 50.3
6 30	-37 47.6	-131 29.8	-37 43.9	-131 12.1	-37 25.5	-129 47.0	-37 07.2	-128 27.2
35	37 43.3	136 08.9	37 40.2	135 47.5	37 24.4	134 05.5	37 08.3	132 30.7
40	37 26.2	141 39.9	37 24.1	141 13.2	37 12.6	139 07.0	37 00.2	137 11.5
6 42	-37 14.2	-144 14.3	-37 12.7	-143 44.5	-37 03.8	-141 24.8	-36 53.4	-139 18.1
44	36 57.9	147 07.3	36 57.2	146 33.4	36 51.8	143 56.2	36 44.0	141 35.8
46	36 35.5	150 27.1	36 36.0	149 47.3	36 35.5	146 46.0	36 31.3	144 07.6
48	36 03.6	154 30.4	36 06.2	153 40.7	36 13.3	150 02.0	36 14.3	146 58.4
50	-35 11.7	-160 06.7	-35 19.3	-158 52.8	35 41.8	154 00.5	35 51.0	150 16.9
52	.. .. .	... .. .	.. .. .	... .. .	34 51.1	159 28.7	35 17.7	154 21.4
6 53	.. .. .	... .. .	.. .. .	... .. .	-34 04.6	-163 53.1	-34 54.4	-156 54.6
54	.. .. .	... .. .	.. .. .	... .. .	.. .. .	... .. .	34 22.1	160 10.2
55	.. .. .	... .. .	.. .. .	... .. .	.. .. .	... .. .	-33 22.8	-165 35.7

DURATION OF TOTAL PHASE AND WIDTH OF PATH ON CENTRAL LINE

Universal Time	80 Km Duration	80 Km Width of Path	100 Km Duration	100 Km Width of Path	200 Km Duration	200 Km Width of Path	300 Km Duration	300 Km Width of Path
h m	m s	mi	m s	mi	m s	mi	m s	mi
3 31	. .. .	...	. .. .	...	. .. .	...	2 13.8	95
32	. .. .	...	. .. .	...	. .. .	...	2 22.5	99
33	. .. .	...	. .. .	...	2 16.8	96	2 28.6	101
3 34	. .. .	...	2 06.1	93	2 24.3	100	2 33.8	103
36	2 23.8	100	2 26.0	101	2 34.9	103	2 42.4	106
37	2 29.5	102	2 31.3	102	2 39.2	105	2 46.2	107
3 40	2 42.6	106	2 43.9	106	2 50.3	109	2 56.4	110
45	2 59.0	112	3 00.1	112	3 05.6	113	3 10.9	115
50	3 12.6	115	3 13.6	115	3 18.6	116	3 23.6	117
55	3 24.4	118	3 25.4	118	3 30.1	119	3 34.9	120
4 00	3 35.1	120	3 36.0	120	3 40.6	121	3 45.3	122
05	3 44.8	122	3 45.7	122	3 50.3	123	3 54.8	124
10	3 53.8	123	3 54.6	123	3 59.1	123	4 03.6	124
15	4 02.0	124	4 02.8	124	4 07.3	125	4 11.8	125
20	4 09.5	125	4 10.3	125	4 14.8	126	4 19.3	126
25	4 16.4	126	4 17.2	126	4 21.6	126	4 26.1	127
4 30	4 22.6	126	4 23.5	126	4 27.9	127	4 32.4	127
35	4 28.2	127	4 29.1	126	4 33.5	127	4 38.0	128
40	4 33.2	127	4 34.1	126	4 38.5	128	4 43.1	128
45	4 37.5	127	4 38.4	126	4 42.9	128	4 47.5	128
50	4 41.3	127	4 42.2	126	4 46.7	128	4 51.3	128
55	4 44.4	127	4 45.3	126	4 49.8	128	4 54.4	128
5 05	4 48.6	126	4 49.5	126	4 54.1	127	4 58.7	127
10	4 49.7	126	4 50.6	126	4 55.2	127	4 59.9	127
15	4 50.1	126	4 51.0	126	4 55.6	126	5 00.3	127
20	4 49.8	125	4 50.7	126	4 55.4	126	5 00.1	126
25	4 48.9	125	4 49.8	125	4 54.4	125	4 59.2	126
5 30	4 47.2	124	4 48.1	125	4 52.8	125	4 57.5	125
35	4 44.8	124	4 45.7	124	4 50.4	124	4 55.2	124
40	4 41.7	123	4 42.6	123	4 47.3	123	4 52.1	124
45	4 37.9	123	4 38.8	122	4 43.5	123	4 48.3	124
50	4 33.4	122	4 34.3	122	4 39.0	123	4 43.8	123
55	4 28.1	121	4 29.1	121	4 33.8	122	4 38.5	122
6 00	4 22.1	120	4 23.1	120	4 27.8	121	4 32.6	121
05	4 15.5	119	4 16.4	119	4 21.1	120	4 25.9	120
10	4 08.0	118	4 08.9	118	4 13.7	119	4 18.5	120
15	3 59.8	117	4 00.7	117	4 05.5	118	4 10.3	118
20	3 50.7	116	3 51.7	116	3 56.5	116	4 01.4	117
25	3 40.8	114	3 41.8	114	3 46.7	114	3 51.6	115
6 30	3 29.9	112	3 30.9	113	3 35.9	113	3 41.0	114
35	3 17.7	110	3 18.8	110	3 24.0	111	3 29.3	112
40	3 03.9	108	3 05.1	108	3 10.7	109	3 16.3	110
6 42	2 57.7	106	2 59.0	106	3 04.9	108	3 10.6	109
44	2 51.0	105	2 52.3	105	2 58.6	106	3 04.6	107
46	2 43.5	103	2 45.0	103	2 51.8	105	2 58.2	106
48	2 34.9	101	2 36.5	101	2 44.2	103	2 51.2	105
50	2 23.6	98	2 25.9	98	2 35.4	101	2 43.4	103
52	. .. .	...	. .. .	...	2 24.1	98	2 34.3	100
6 53	. .. .	...	. .. .	...	2 15.7	96	2 28.8	99
54	. .. .	...	. .. .	...	. .. .	...	2 22.1	97
55	. .. .	...	. .. .	...	. .. .	...	2 11.8	94

LOCAL CIRCUMSTANCES FOR POINTS ON CENTRAL LINE

Universal Time	Central Line Latitude	Central Line Longitude	First Contact Universal Time	First Contact P	First Contact V	Second Contact Universal Time	Second Contact P	Second Contact V
h m	° ′	° ′	h m s	°	°	h m s	°	°
3 36	- 5 00.4	- 35 33.1	.. ..	...	...	3 34 52.6	110	205
37	6 03.2	39 45.0	.. ..	...	...	3 35 48.1	111	205
38	6 46.2	42 21.0	.. ..	...	...	3 36 44.9	111	206
39	7 22.2	44 22.7	2 42 52.1	291	28	3 37 42.4	112	207
3 40	- 7 54.1	- 46 05.2	2 43 06.2	291	28	3 38 40.2	112	207
42	8 50.5	48 55.2	2 43 45.8	291	29	3 40 36.3	113	208
44	9 40.6	51 16.1	2 44 35.2	292	30	3 42 32.9	113	209
46	10 26.5	53 18.2	2 45 31.0	292	31	3 44 29.8	113	210
48	11 09.5	55 06.8	2 46 31.4	292	31	3 46 26.9	114	210
3 50	-11 50.1	- 56 45.4	2 47 35.3	293	32	3 48 24.2	114	211
55	13 24.0	60 20.1	2 50 26.9	293	34	3 53 18.1	114	213
4 00	-14 50.2	- 63 23.6	2 53 30.6	294	35	3 58 12.7	115	215
05	16 10.6	66 05.9	2 56 43.3	294	37	4 03 07.7	115	217
10	17 26.7	68 33.2	3 00 03.4	295	38	4 08 03.2	116	219
15	18 39.2	70 49.1	3 03 29.7	295	40	4 12 59.0	116	221
20	19 48.7	72 56.5	3 07 01.6	295	41	4 17 55.3	116	224
25	20 55.6	74 57.3	3 10 38.6	295	43	4 22 51.8	116	226
4 30	-22 00.1	- 76 53.1	3 14 20.7	296	45	4 27 48.6	116	229
35	23 02.6	78 45.1	3 18 07.6	296	47	4 32 45.8	116	233
40	24 03.1	80 34.3	3 21 59.3	296	48	4 37 43.3	116	236
45	25 01.9	82 21.5	3 25 55.9	296	50	4 42 41.1	116	241
50	25 58.9	84 07.5	3 29 57.5	296	53	4 47 39.2	116	246
55	26 54.3	85 52.9	3 34 04.1	296	55	4 52 37.7	116	252
5 00	-27 48.1	- 87 38.5	3 38 16.1	296	58	4 57 36.4	116	258
05	28 40.3	89 24.7	3 42 33.7	296	61	5 02 35.5	115	266
10	29 31.0	91 12.1	3 46 57.1	295	64	5 07 35.0	115	274
15	30 20.0	93 01.2	3 51 26.5	295	68	5 12 34.8	115	282
20	31 07.5	94 52.7	3 56 02.5	295	72	5 17 34.9	114	289
25	31 53.4	96 47.0	4 00 45.4	295	77	5 22 35.5	114	297
5 30	-32 37.5	- 98 44.7	4 05 35.6	294	82	5 27 36.3	113	304
35	33 19.8	100 46.5	4 10 33.5	294	88	5 32 37.5	113	310
40	34 00.3	102 53.1	4 15 39.8	293	94	5 37 39.1	112	315
45	34 38.7	105 05.1	4 20 54.7	293	101	5 42 41.0	111	319
50	35 14.8	107 23.5	4 26 19.0	292	108	5 47 43.3	111	323
55	35 48.6	109 49.3	4 31 53.1	292	115	5 52 45.9	110	326
6 00	-36 19.7	-112 23.5	4 37 37.8	291	122	5 57 48.9	109	328
05	36 47.8	115 07.6	4 43 33.8	290	128	6 02 52.3	109	331
10	37 12.4	118 03.3	4 49 41.7	290	134	6 07 56.1	108	332
15	37 33.1	121 13.0	4 56 02.6	289	139	6 13 00.2	107	334
20	37 49.1	124 39.6	5 02 37.5	288	144	6 18 04.9	106	335
25	37 59.3	128 27.5	5 09 28.1	287	147	6 23 09.9	106	336
6 30	-38 02.3	-132 43.2	5 16 36.4	286	150	6 28 15.5	105	336
35	37 55.5	137 37.8	5 24 06.5	285	153	6 33 21.7	104	337
40	37 34.1	143 32.3	5 32 05.7	284	155	6 38 28.9	103	337
6 42	-37 19.3	-146 20.6	5 35 29.0	284	156	6 40 32.2	103	337
44	36 59.1	149 32.7	5 39 02.2	283	157	6 42 35.8	102	337
46	36 30.7	153 21.8	5 42 50.1	283	157	6 44 39.8	102	337
6 47	-36 11.7	-155 38.7	5 44 52.6	282	158	6 45 42.2	102	337
48	35 47.2	158 21.0	5 47 04.9	282	158	6 46 44.9	101	337
49	35 12.6	161 50.7	5 49 34.9	282	158	6 47 48.3	101	337
50	-34 02.2	-168 13.0	5 53 09.1	281	159	6 48 54.0	100	336

LOCAL CIRCUMSTANCES FOR POINTS ON CENTRAL LINE

Maximum Eclipse: Universal Time	Magnitude	Sun's Alt.	Sun's Az.	Third Contact: Universal Time	P	V	Fourth Contact: Universal Time	P	V	Duration	Width of Path
h m s		°	°	h m s	°	°	h m s	°	°	m s	mi
3 36 00.0	1.042	4	101	3 37 07.4	290	24	4 33 59.6	111	203	2 14.8	95
3 37 00.0	1.043	9	101	3 38 11.9	291	25	4 37 04.9	112	204	2 23.8	98
3 38 00.0	1.044	12	100	3 39 15.1	291	26	4 39 28.6	113	204	2 30.2	101
3 39 00.0	1.045	14	100	3 40 17.6	292	26	4 41 37.3	113	205	2 35.2	103
3 40 00.0	1.045	16	100	3 41 19.8	292	27	4 43 37.5	113	205	2 39.6	105
3 42 00.0	1.046	20	99	3 43 23.7	293	28	4 47 22.1	114	206	2 47.4	107
3 44 00.0	1.047	22	98	3 45 27.1	293	29	4 50 53.2	114	207	2 54.2	109
3 46 00.0	1.048	25	98	3 47 30.2	293	29	4 54 15.3	114	208	3 00.4	111
3 48 00.0	1.049	27	97	3 49 33.1	294	30	4 57 30.6	115	209	3 06.2	113
3 50 00.0	1.049	30	97	3 51 35.8	294	31	5 00 40.6	115	210	3 11.6	114
3 55 00.0	1.051	34	95	3 56 41.9	294	33	5 08 17.4	116	212	3 23.8	117
4 00 00.0	1.052	39	93	4 01 47.3	295	35	5 15 34.0	116	215	3 34.6	119
4 05 00.0	1.053	43	91	4 06 52.3	295	37	5 22 34.4	116	219	3 44.6	121
4 10 00.0	1.054	46	88	4 11 56.8	296	39	5 29 20.8	116	223	3 53.6	123
4 15 00.0	1.054	49	86	4 17 01.0	296	41	5 35 54.5	117	228	4 02.0	124
4 20 00.0	1.055	52	83	4 22 04.7	296	44	5 42 16.5	117	235	4 09.4	124
4 25 00.0	1.056	55	80	4 27 08.2	296	47	5 48 27.2	117	243	4 16.4	125
4 30 00.0	1.056	58	76	4 32 11.4	296	50	5 54 27.3	116	254	4 22.8	126
4 35 00.0	1.057	60	72	4 37 14.2	296	53	6 00 17.0	116	266	4 28.4	126
4 40 00.0	1.057	63	67	4 42 16.7	296	57	6 05 56.6	116	279	4 33.4	126
4 45 00.0	1.057	65	62	4 47 18.9	296	62	6 11 26.5	116	292	4 37.8	126
4 50 00.0	1.057	67	55	4 52 20.8	296	68	6 16 46.9	115	303	4 41.6	126
4 55 00.0	1.058	68	48	4 57 22.3	296	74	6 21 58.0	115	312	4 44.6	126
5 00 00.0	1.058	69	40	5 02 23.6	296	81	6 27 00.2	115	319	4 47.2	126
5 05 00.0	1.058	70	32	5 07 24.5	295	88	6 31 53.7	114	324	4 49.0	126
5 10 00.0	1.058	71	22	5 12 25.0	295	96	6 36 38.7	114	328	4 50.0	126
5 15 00.0	1.058	71	13	5 17 25.2	295	105	6 41 15.7	113	331	4 50.4	125
5 20 00.0	1.058	70	4	5 22 25.1	294	113	6 45 44.8	113	333	4 50.2	125
5 25 00.0	1.058	70	355	5 27 24.5	294	120	6 50 06.2	112	335	4 49.0	124
5 30 00.0	1.058	68	346	5 32 23.7	293	126	6 54 20.4	112	336	4 47.4	124
5 35 00.0	1.058	67	339	5 37 22.5	293	132	6 58 27.5	111	337	4 45.0	124
5 40 00.0	1.057	65	332	5 42 20.9	292	137	7 02 27.7	110	338	4 41.8	123
5 45 00.0	1.057	63	325	5 47 19.0	291	141	7 06 21.4	110	338	4 38.0	122
5 50 00.0	1.057	61	320	5 52 16.7	291	144	7 10 08.5	109	339	4 33.4	121
5 55 00.0	1.056	58	315	5 57 14.1	290	147	7 13 49.4	108	339	4 28.2	120
6 00 00.0	1.056	56	310	6 02 11.1	289	149	7 17 24.2	108	339	4 22.2	120
6 05 00.0	1.055	53	305	6 07 07.7	289	151	7 20 52.7	107	339	4 15.4	119
6 10 00.0	1.055	50	301	6 12 03.9	288	153	7 24 14.8	106	339	4 07.8	117
6 15 00.0	1.054	47	297	6 16 59.8	287	154	7 27 30.2	106	338	3 59.6	117
6 20 00.0	1.053	43	292	6 21 55.1	286	155	7 30 38.6	105	338	3 50.2	115
6 25 00.0	1.052	39	288	6 26 50.1	286	156	7 33 38.9	104	338	3 40.2	113
6 30 00.0	1.051	35	284	6 31 44.5	285	156	7 36 29.6	104	337	3 29.0	112
6 35 00.0	1.050	30	279	6 36 38.3	284	157	7 39 07.9	103	337	3 16.6	109
6 40 00.0	1.048	25	275	6 41 31.1	283	157	7 41 27.7	102	336	3 02.2	107
6 42 00.0	1.047	22	272	6 43 27.8	283	157	7 42 15.7	102	336	2 55.6	105
6 44 00.0	1.047	19	270	6 45 24.2	282	157	7 42 56.8	102	335	2 48.4	104
6 46 00.0	1.045	16	267	6 47 20.2	282	157	7 43 26.9	101	335	2 40.4	101
6 47 00.0	1.045	14	266	6 48 17.8	282	157	7 43 35.4	101	335	2 35.6	101
6 48 00.0	1.044	11	264	6 49 15.1	281	157	7 43 36.5	101	334	2 30.2	99
6 49 00.0	1.043	8	262	6 50 11.7	281	157	.. ..	...	...	2 23.4	97
6 50 00.0	1.041	3	258	6 51 06.0	280	156	.. ..	...	...	2 12.0	94

LOCAL CIRCUMSTANCES

Geographic Locations			First Contact			Second Contact		
	Latitude	Longitude	Universal Time	P	V	Universal Time	P	V
	°	°	h m s	°	°	h m s	°	°
Adelaide, S. A., Austr.	-34 56.0	-138 36.0	5 27 03.4	280	152			
Albany, W. A., Austr.	-34 57.0	-117 54.0	4 48 32.0	286	132			
Ararat, Vic., Austr.	-37 17.0	-142 56.2	5 31 31.4	284	155	6 38 24.2	78	312
Bacchus Marsh, Vic., Austr.	-38 40.5	-144 26.0	5 32 31.6	286	156			
Bagamoyo, Tanzania	- 6 26.0	- 38 55.0	.. ..	...	...	3 36 32.3	165	260
Bairnsdale, Vic., Austr.	-37 50.0	-147 37.0	5 36 31.6	285	157	6 41 31.5	159	33
Ballarat, Vic., Austr.	-37 34.0	-143 51.0	5 32 28.1	284	155	6 38 42.2	105	339
Bega, N. S. W., Austr.	-36 40.5	-149 50.0	5 39 31.9	283	157	6 43 05.0	81	316
Benalla, Vic., Austr.	-36 33.5	-145 59.0	5 35 34.6	282	156			
Bendigo, Vic., Austr.	-36 45.5	-144 17.0	5 33 28.6	283	155	6 40 44.8	27	262
Berwick, Vic., Austr.	-38 02.0	-145 22.0	5 33 57.5	285	156	6 39 57.5	156	30
Bickley, W. A., Austr.	-32 00.5	-116 08.1	4 43 43.9	282	127			
Bombala, N. S. W., Austr.	-36 54.2	-149 13.9	5 38 47.0	283	157	6 42 31.0	93	328
Bright, Vic., Austr.	-36 43.0	-146 57.2	5 36 32.6	283	156	6 41 48.5	57	292
Brisbane, Qld., Austr.	-27 30.0	-153 00.0	5 50 36.8	266	151			
Bundalaguah, Vic., Austr.	-38 01.7	-147 01.0	5 35 46.4	285	157			
Camperdown, Vic., Austr.	-38 19.1	-143 09.0	5 31 12.2	286	156	6 38 33.9	171	44
Canberra, A. C. T., Austr.	-35 18.0	-149 08.0	5 39 49.9	280	156			
Canberra, *Mt. Stromlo Observatory*	-35 19.3	-149 00.3	5 39 41.8	280	156			
Cape Howe, Vic., Austr.	-37 30.0	-149 59.0	5 39 06.9	284	157	6 42 51.8	150	24
Cape Martin, S. A., Austr.	-37 30.0	-140 00.5	5 27 36.9	284	154	6 35 54.2	81	314
Cape Nelson, Vic., Austr.	-38 26.0	-141 32.5	5 29 09.0	286	155	6 37 16.1	170	43
Carnarvon, W. A., Austr.	-24 51.0	-113 45.0	4 36 58.2	271	116			
Casterton, Vic., Austr.	-37 35.5	-141 24.2	5 29 24.7	284	155	6 36 52.6	94	327
Castlemaine, Vic., Austr.	-37 04.0	-144 13.0	5 33 12.4	283	155	6 39 36.8	68	302
Cerf Island, Indian Ocean	- 9 30.0	- 51 00.0	2 44 24.4	292	30	3 42 14.0	108	203
Christchurch, N. Z.	-43 33.0	-172 38.0	5 48 29.2	298	166			
Christchurch, *Aerospace Field Station*	-43 37.2	-172 24.3	5 48 23.4	298	166			
Colac, Vic., Austr.	-38 20.5	-143 35.0	5 31 42.7	286	156	6 39 20.3	190	63
Cooma, N. S. W., Austr.	-36 14.5	-149 08.0	5 39 08.8	282	156			
Culgoora, N. S. W., Austr., *C.S.I.R.O.*	-30 18.9	-149 33.7	5 44 31.4	271	153			
Dar Es Salaam, Tanzania	- 6 51.0	- 39 18.0	. .. .. .	...	...			
Darwin, N. T., Austr.	-12 23.0	-130 44.0	5 46 54.1	231	135			
Daylesford, Vic., Austr.	-37 21.0	-144 08.0	5 32 56.2	284	155	6 39 06.1	90	325
Diego-Suarez, Madagascar	-12 19.0	- 49 17.0	2 47 16.6	297	38			
Dodoma, Tanzania	- 6 10.0	- 35 40.0	.. ..	...	...			
Drouin, Vic., Austr.	-38 08.2	-145 52.0	5 34 27.4	285	156	6 40 56.8	188	61
Dunedin, N. Z., *Beverly-Begg Obs.*	-45 52.4	-170 29.5	5 46 41.5	301	167			
Eden, N. S. W., Austr.	-37 04.0	-149 54.0	5 39 19.6	283	157	6 42 43.6	111	346
Eskdale, Vic., Austr.	-36 27.7	-147 14.8	5 37 02.0	282	156			
Euroa, Vic., Austr.	-36 45.7	-145 34.8	5 34 59.3	283	156	6 41 07.2	48	282
Farquhar Island, Indian Ocean	-10 12.0	- 51 12.0	2 45 05.1	293	31	3 43 25.0	153	250
Gapsted, Vic., Austr.	-36 31.0	-146 41.0	5 36 23.0	282	156			
Geelong, Vic., Austr.	-38 10.0	-144 20.0	5 32 41.6	285	156	6 39 17.7	162	35
Geraldton, W. A., Austr.	-28 49.0	-114 36.0	4 39 19.0	277	120			
Hamilton, Vic., Austr.	-37 44.5	-142 02.0	5 30 08.1	285	155	6 37 14.3	108	341
Healesville, Vic., Austr.	-37 39.2	-145 32.0	5 34 22.5	284	156	6 39 51.1	122	356
Hobart, Tas., Austr.	-42 54.0	-147 18.0	5 33 30.6	293	159			
Horsham, Vic., Austr.	-36 43.2	-142 11.9	5 30 55.5	283	154			
Kilosa, Tanzania	- 6 49.0	- 36 50.0	.. ..	...	...			
Kondoa, Tanzania	- 4 54.0	- 35 46.0	.. ..	...	...	3 34 49.1	98	192
Kyneton, Vic., Austr.	-37 15.0	-144 27.0	5 33 22.3	284	155	6 39 26.2	85	319
Lake Tekapo, N. Z., *Mt. John U. Obs.*	-43 59.2	-170 27.9	5 47 38.7	298	166			

LOCAL CIRCUMSTANCES

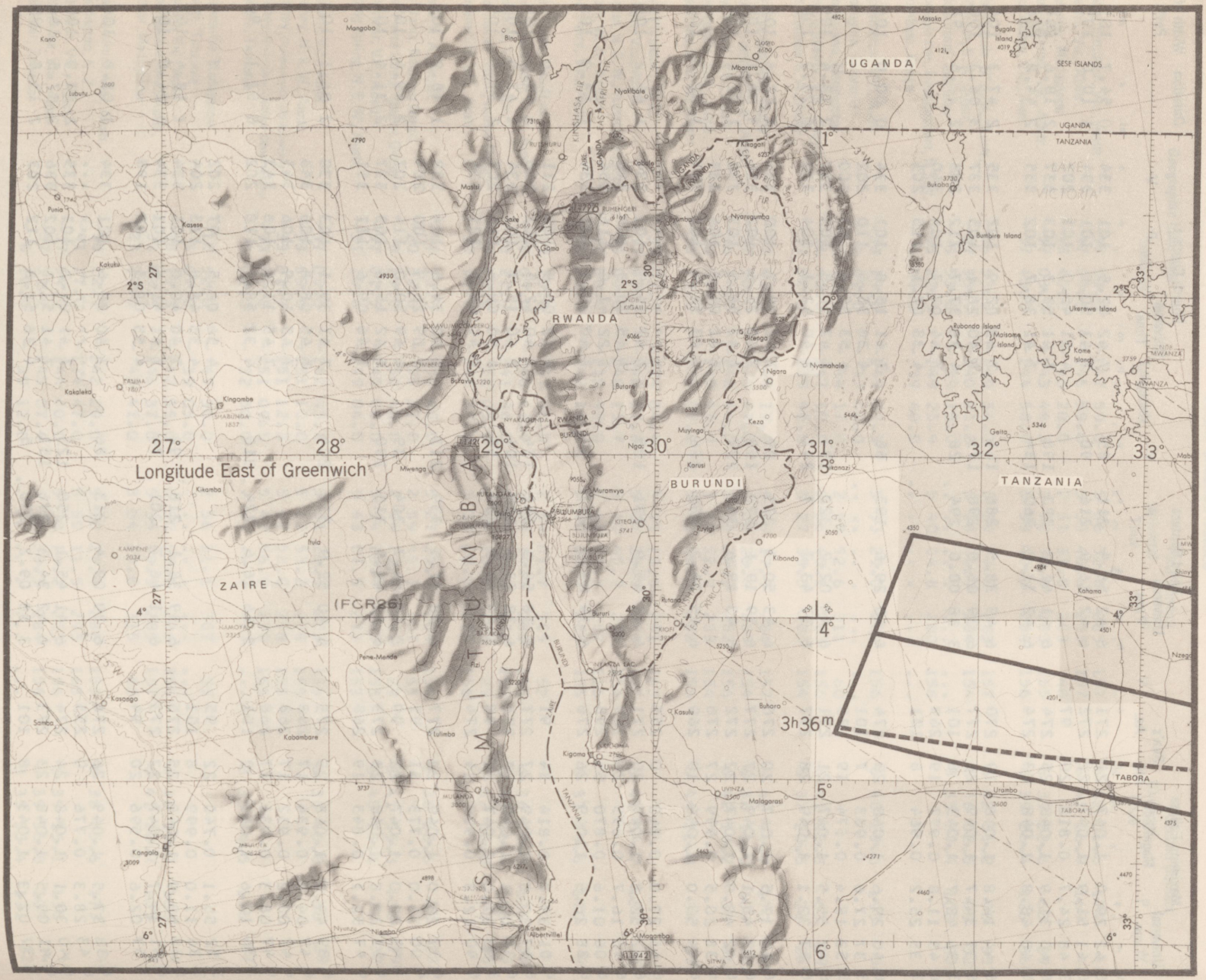
Maximum Eclipse				Third Contact			Fourth Contact			Duration	Width of Path
Universal Time	Magnitude	Sun's Alt.	Sun's Az.	Universal Time	P	V	Universal Time	P	V		
h m s		°	°	h m s	°	°	h m s	°	°	m s	*mi*
6 37 53.2	0.931	29	277				7 41 35.0	108	345		
6 09 58.0	0.956	51	299				7 24 58.3	110	345		
6 39 47.3	1.048	25	275	6 41 10.5	308	183	7 41 31.7	103	337	2 46.3	107
6 39 44.2	0.987	24	274				7 40 43.6	100	333		
3 37 14.0	1.043	8	101	3 37 55.7	237	332	4 36 56.8	111	203	1 23.4	99
6 42 19.4	1.047	21	272	6 43 07.4	226	100	7 42 02.1	101	334	1 35.9	105
6 40 12.9	1.048	24	274	6 41 43.6	281	155	7 41 32.4	102	336	3 01.4	106
6 44 23.1	1.046	19	270	6 45 41.2	304	179	7 43 12.8	102	336	2 36.2	103
6 42 22.2	0.999	22	272				7 42 47.3	103	338		
6 41 07.4	1.048	24	274	6 41 30.0	358	233	7 42 16.6	103	338	0 45.2	106
6 40 50.6	1.048	23	273	6 41 43.7	230	103	7 41 29.3	101	334	1 46.2	106
6 06 39.4	0.869	54	298				7 23 06.9	116	354		
6 43 54.6	1.047	19	270	6 45 18.2	291	166	7 42 58.9	102	336	2 47.2	104
6 42 49.7	1.047	22	272	6 43 50.8	328	203	7 42 50.3	103	337	2 02.3	105
6 51 55.7	0.740	14	264				7 47 14.4	117	359		
6 41 49.9	0.999	22	272				7 41 46.9	101	334		
6 39 09.0	1.048	25	275	6 39 44.1	216	89	7 40 43.8	101	334	1 10.2	107
6 45 05.5	0.969	19	269				7 44 08.1	104	340		
6 45 01.4	0.970	19	270				7 44 07.1	104	340		
6 43 47.9	1.046	19	270	6 44 44.0	234	108	7 42 33.7	101	334	1 52.2	104
6 37 22.0	1.049	28	277	6 38 49.8	307	180	7 40 25.3	103	337	2 55.6	109
6 37 53.3	1.049	27	277	6 38 30.4	217	90	7 40 10.1	101	334	1 14.3	108
5 59 33.1	0.651	61	292				7 16 03.9	130	16		
6 38 24.9	1.049	27	276	6 39 57.2	293	167	7 40 49.6	103	337	3 04.6	108
6 40 50.7	1.048	24	274	6 42 04.6	318	193	7 42 01.5	103	337	2 27.8	106
3 43 40.3	1.047	22	99	3 45 06.7	298	34	4 50 22.3	114	207	2 52.7	109
6 41 45.8	0.727	3	257				.. ..	...	...		
6 41 43.5	0.726	3	257				.. ..	...	...		
6 39 25.9	1.048	25	275	6 39 31.6	197	70	7 40 49.3	101	334	0 11.3	107
6 44 22.6	0.999	19	270				7 43 28.6	103	337		
6 48 43.0	0.815	18	267				7 46 29.6	113	353		
3 37 37.0	0.995	9	101				4 37 33.4	111	203		
6 32 43.7	0.180	38	265				7 14 56.7	159	62		
6 40 34.4	1.048	24	274	6 42 02.6	296	170	7 41 47.0	102	336	2 56.5	106
3 45 53.4	0.930	21	98				4 51 40.0	109	205		
3 36 53.3	0.987	5	101				4 35 01.9	110	202		
6 41 04.2	1.048	23	273	6 41 11.6	198	71	7 41 29.7	101	334	0 14.8	106
6 39 43.8	0.676	5	259				.. ..	...	...		
6 44 06.4	1.046	19	270	6 45 29.2	273	148	7 42 54.6	101	335	2 45.6	104
6 43 11.6	0.999	21	271				7 43 04.6	103	338		
6 41 57.9	1.048	23	273	6 42 48.6	338	213	7 42 33.4	103	337	1 41.4	105
3 44 31.7	1.047	23	98	3 45 38.3	253	349	4 51 26.4	113	207	2 13.3	109
6 42 49.4	0.999	22	272				7 42 56.6	103	338		
6 40 04.4	1.048	24	274	6 40 51.2	224	98	7 41 09.2	101	334	1 33.5	107
6 02 55.0	0.775	58	296				7 20 11.6	122	3		
6 38 46.9	1.049	26	276	6 40 19.5	279	152	7 40 54.1	102	336	3 05.2	108
6 41 14.8	1.048	23	273	6 42 38.6	263	137	7 41 50.5	102	335	2 47.5	106
6 37 47.1	0.852	22	275				7 36 43.6	93	321		
6 39 39.7	0.994	26	275				7 41 44.5	104	339		
3 37 25.4	0.977	6	101				4 36 09.2	109	202		
3 35 55.0	1.042	5	101	3 37 00.8	303	37	4 33 59.5	112	203	2 11.7	94
6 40 51.7	1.048	24	274	6 42 17.2	301	176	7 41 56.2	103	337	2 51.0	106
6 41 34.4	0.726	5	258				.. ..	...	...		

LOCAL CIRCUMSTANCES

Geographic Locations	Latitude	Longitude	First Contact Universal Time	First Contact P	First Contact V	Second Contact Universal Time	Second Contact P	Second Contact V
	° ′	° ′	h m s	°	°	h m s	°	°
Lakes Entrance, Vic., Austr.	−37 53.0	−147 59.0	5 36 52.6	285	157	6 42 01.6	174	48
Maffra, Vic., Austr.	−37 57.8	−146 59.0	5 35 46.6	285	157	6 41 16.9	169	43
Majunga, Madagascar	−15 40.0	− 46 20.0	2 51 37.0	303	48			
Maryborough, Vic., Austr.	−37 03.0	−143 44.3	5 32 38.5	283	155	6 39 22.6	63	297
Melbourne, Vic., Austr.	−37 45.0	−144 58.0	5 33 40.3	284	156	6 39 26.4	126	360
Merrimbula, N. S. W., Austr.	−36 53.5	−149 54.2	5 39 27.0	283	157	6 42 51.2	98	333
Millicent, S. A., Austr.	−37 35.9	−140 21.2	5 28 01.7	284	154	6 36 02.5	90	323
Mkokotoni, Zanzibar	− 5 53.0	− 39 15.0	.. ..	...	...	3 35 37.4	108	202
Molonglo Obs., Hoskinstown, N.S.W.	−35 22.3	−149 25.4	5 40 04.8	280	156			
Mombasa, Kenya	− 4 04.0	− 39 40.0	.. ..	...	...			
Mornington, Vic., Austr.	−38 13.0	−145 02.5	5 33 29.0	285	156	6 40 29.6	193	66
Morogora, Tanzania	− 6 49.0	− 37 40.0	.. ..	...	...			
Morondava, Madagascar	−20 19.0	− 44 17.0	2 58 52.6	311	60			
Mount Beauty, Vic., Austr.	−36 45.0	−147 10.0	5 36 45.1	283	156	6 41 48.8	63	298
Mt. Benson, S. A., Austr.	−37 02.3	−139 48.8	5 27 35.5	283	154	6 37 20.5	21	255
Mt. Everard, Vic., Austr.	−37 43.0	−149 17.0	5 38 17.9	284	157	6 42 44.7	170	44
Mount Gambier, S. A., Austr.	−37 50.0	−140 47.0	5 28 28.6	285	154	6 36 11.0	109	342
Myrtleford, Vic., Austr.	−36 34.0	−146 44.0	5 36 24.2	282	156	6 42 18.2	33	268
Naracoorte, S. A., Austr.	−36 57.9	−140 43.9	5 28 52.2	283	154			
Narooma, N. S. W., Austr.	−36 13.0	−150 07.8	5 40 08.6	282	156	6 44 21.9	34	270
New Plymouth, N. Z.	−39 03.8	−174 04.4	5 51 18.5	291	163			
Orbost, Vic., Austr.	−37 42.3	−148 27.8	5 37 28.9	284	157	6 41 59.7	154	28
Parkes, N. S. W., Austr., *C.S.I.R.O.*	−33 00.0	−148 15.7	5 40 45.2	276	154			
Perth, W. A., Austr.	−31 58.0	−115 49.0	4 42 58.3	282	126			
Port Fairy, Vic., Austr.	−38 23.0	−142 14.0	5 30 02.7	286	155	6 37 49.6	170	43
Port Louis, Mauritius	−20 10.0	− 57 30.0	2 59 01.7	305	52			
Port MacDonnell, S. A., Austr.	−38 03.8	−140 41.9	5 28 14.9	285	155	6 36 03.3	126	359
Portland, Vic., Austr.	−38 21.0	−141 36.5	5 29 16.6	286	155	6 37 06.4	158	31
Providence Island, Indian Ocean	− 9 15.0	− 51 05.0	2 44 10.9	291	29	3 42 08.5	88	183
Queenscliff, Vic., Austr.	−38 16.0	−144 39.2	5 33 00.5	285	156			
Robe, S. A., Austr.	−37 10.5	−139 45.0	5 27 25.9	284	154	6 36 28.6	48	282
St.-Denis, Reunion Island	−20 52.0	− 55 27.0	2 59 46.1	307	55			
Ste. Pierre Island, Indian Ocean	− 9 19.0	− 50 43.0	2 44 13.4	291	29	3 41 55.3	102	198
Seymour, Vic., Austr.	−37 01.5	−145 08.0	5 34 18.4	283	155	6 40 13.1	71	305
Siding Spring, N. S. W., Austr.	−31 16.6	−149 04.0	5 43 07.5	273	153			
Stawell, Vic., Austr.	−37 03.6	−142 45.8	5 31 26.3	283	155	6 38 46.8	56	291
Sydney, N. S. W., Austr.	−33 55.0	−151 10.0	5 42 53.2	278	155			
Sydney, *Government Observatory*	−33 51.7	−151 12.3	5 42 58.0	278	155			
Sydney, *Riverview College Observatory*	−33 49.8	−151 09.5	5 42 56.9	278	155			
Tabora, Tanzania	− 5 02.0	− 32 50.0	.. ..	...	...	3 35 44.5	176	271
Tananarive, Madagascar	−18 52.0	− 47 30.0	2 56 11.1	307	55			
Tanga, Tanzania	− 5 07.0	− 39 05.0	.. ..	...	...			
Terang, Vic., Austr.	−38 19.3	−142 55.0	5 30 55.1	286	155	6 38 19.7	168	41
Toongabbie, Vic., Austr.	−38 03.5	−146 37.0	5 35 19.5	285	157	6 41 22.7	185	58
Tulear, Madagascar	−23 20.0	− 43 41.0	3 04 13.6	315	68			
Warrnambool, Vic., Austr.	−38 22.9	−142 29.0	5 30 21.4	286	155	6 38 05.6	173	46
Wellington, N. Z.	−41 17.0	−174 47.0	5 50 11.5	295	165			
Werribee, Vic., Austr.	−37 54.0	−144 40.0	5 33 14.2	285	156	6 39 15.1	136	10
Whittlesea, Vic., Austr.	−37 31.2	−145 07.4	5 33 59.3	284	156	6 39 36.8	109	343
Zanzibar, Zanzibar	− 6 10.0	− 39 12.0	.. ..	...	...	3 35 55.4	131	226

LOCAL CIRCUMSTANCES

Maximum Eclipse: Universal Time	Magnitude	Sun's Alt.	Sun's Az.	Third Contact: Universal Time	P	V	Fourth Contact: Universal Time	P	V	Duration	Width of Path
h m s		°	°	h m s	°	°	h m s	°	°	m s	*mi*
6 42 29.0	1.047	21	271	6 42 56.3	211	85	7 42 02.5	101	334	0 54.7	105
6 41 51.9	1.047	22	272	6 42 26.9	216	90	7 41 50.0	101	334	1 10.0	105
3 48 24.7	0.812	20	97				4 51 45.0	101	202		
6 40 31.9	1.048	25	274	6 41 41.2	323	198	7 41 55.3	103	337	2 18.6	106
6 40 48.8	1.048	23	274	6 42 11.2	260	134	7 41 38.7	102	335	2 44.8	106
6 44 14.8	1.046	19	270	6 45 38.5	286	161	7 43 02.9	102	335	2 47.3	104
6 37 34.7	1.049	28	277	6 39 06.8	298	171	7 40 28.1	103	337	3 04.3	108
3 36 48.7	1.043	8	101	3 38 00.0	294	28	4 36 37.7	112	203	2 22.6	98
6 45 11.8	0.973	19	269				7 44 07.7	104	340		
3 35 25.2	0.964	8	101				4 35 07.1	115	205		
6 40 29.6	1.048	23	274	6 40 29.6	193	66	7 41 15.8	101	334	0 00.0	106
3 37 27.6	0.983	7	101				4 36 35.6	110	202		
3 53 18.4	0.674	19	95				4 53 30.6	93	200		
6 42 55.5	1.047	21	271	6 44 02.2	322	197	7 42 50.8	103	337	2 13.4	105
6 37 32.1	1.049	28	277	6 37 43.7	7	241	7 40 42.1	104	339	0 23.2	108
6 43 17.5	1.047	20	270	6 43 50.3	215	89	7 42 19.7	100	334	1 05.6	105
6 37 45.1	1.049	27	277	6 39 19.1	278	152	7 40 25.6	102	336	3 08.1	108
6 42 48.9	1.047	22	272	6 43 19.6	352	227	7 42 54.9	103	338	1 01.4	105
6 38 20.5	0.999	27	276				7 41 05.2	104	339		
6 44 53.0	1.046	19	269	6 45 24.2	350	226	7 43 34.9	103	337	1 02.3	103
6 45 27.0	0.842	0	255				.. ..	...	...		
6 42 52.8	1.047	20	271	6 43 45.9	231	105	7 42 14.9	101	334	1 46.2	105
6 46 16.7	0.895	20	269				7 45 20.3	109	346		
6 06 01.6	0.870	55	298				7 22 41.0	116	354		
6 38 26.5	1.049	26	276	6 39 03.5	217	90	7 40 25.3	101	334	1 13.9	108
4 01 39.7	0.814	34	91				5 12 06.9	103	211		
6 37 30.8	1.049	27	277	6 38 58.3	261	134	7 40 12.5	102	336	2 55.0	108
6 38 00.1	1.049	27	276	6 38 53.9	229	101	7 40 15.7	101	334	1 47.5	108
3 43 27.0	1.047	22	99	3 44 45.5	318	53	4 50 09.6	115	207	2 37.0	109
6 40 12.3	0.999	24	274				7 41 08.3	101	334		
6 37 23.0	1.049	28	277	6 38 17.5	339	213	7 40 34.5	104	338	1 48.9	109
4 00 54.0	0.773	31	91				5 09 26.9	100	209		
3 43 20.0	1.047	22	99	3 44 44.7	304	39	4 49 50.0	114	207	2 49.4	109
6 41 28.8	1.048	23	273	6 42 44.5	315	190	7 42 15.8	103	337	2 31.4	105
6 47 52.1	0.843	19	268				7 46 09.6	111	351		
6 39 49.9	1.048	25	275	6 40 52.9	330	204	7 41 39.1	103	338	2 06.1	107
6 47 04.8	0.934	17	268				7 45 08.8	106	343		
6 47 08.2	0.932	17	268				7 45 10.9	106	343		
6 47 08.3	0.931	17	268				7 45 11.8	106	343		
3 36 10.6	1.041	2	101	3 36 36.6	224	318	4 32 58.5	110	202	0 52.1	96
3 52 55.1	0.740	22	95				4 56 04.5	97	202		
3 36 11.0	0.999	8	101				4 35 48.8	113	204		
6 38 58.9	1.048	25	275	6 39 38.1	218	92	7 40 40.0	101	334	1 18.4	107
6 41 34.7	1.047	22	273	6 41 46.7	201	74	7 41 41.6	101	334	0 24.0	105
3 57 02.6	0.596	20	94				4 55 08.3	88	198		
6 38 37.5	1.049	26	276	6 39 09.4	213	86	7 40 29.6	101	334	1 03.8	108
6 43 28.3	0.776	0	255				.. ..	...	...		
6 40 30.1	1.048	24	274	6 41 45.1	250	123	7 41 21.2	101	335	2 30.0	106
6 41 05.5	1.048	23	273	6 42 34.3	276	151	7 41 52.1	102	336	2 57.5	106
3 37 02.3	1.043	8	101	3 38 09.2	270	5	4 36 51.8	112	203	2 13.8	99


UGANDA
RWANDA
BURUNDI
TANZANIA
ZAIRE
LAKE VICTORIA
SESE ISLANDS
Bumbire Island
Ukerewe Island
Rubondo Island
Maisome Island
Kome Island
Mwanza
Bukoba
Kagoti
Nyakibale
Kabale
Ruhengeri
Gisenyi
Kigali
Byumba
Nyarugumba
Biranga
Nyamahale
Ngara
Butare
Gitega
Muyinga
Kirundo
Ruyigi
Kibonda
Karusi
Muramvya
Bujumbura
Uvira
Bukavu
Kamembe
Cyangugu
Kamina
Kasongo
Kabambare
Lulimba
Kigoma
Kasulu
Buhoro
Malagarasi
Urambo
Tabora
Kahama
Nzega
Mwenga
Kikamba
Pene-Mende
Samba
Kongolo
Albertville
Moyamba
Kabalo
Mangobo
Kano
Lubutu
Punia
Kasese
Kakuka
Kakaleka
Kingamba
Mastsi
Bing
Masaka
Mbarara
Bugala Island
Rutshuru
Goma
Nyanza
Nyanza-Lac
Rutana
Burun
Kitega
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Kibumba
Kiyaga
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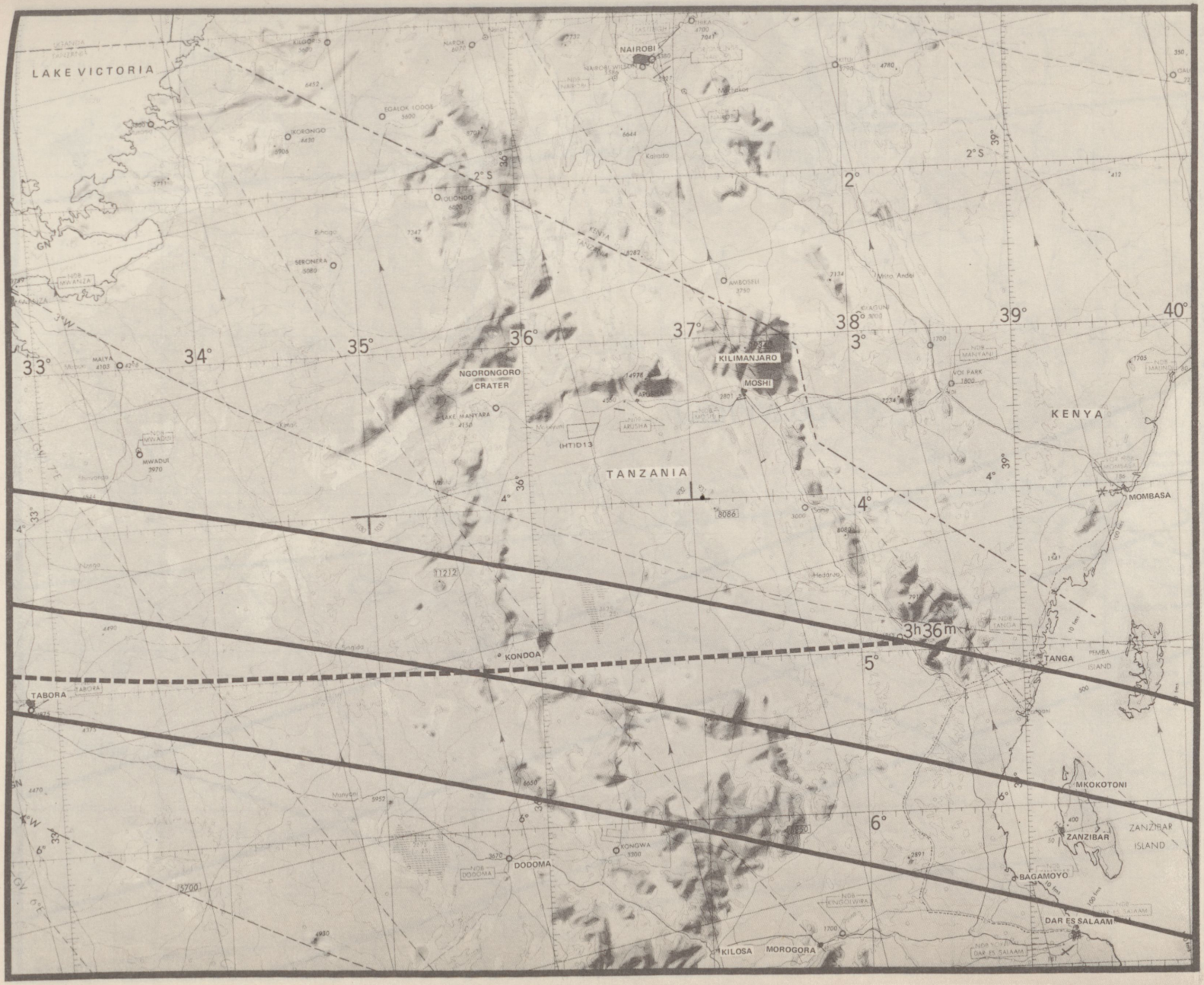
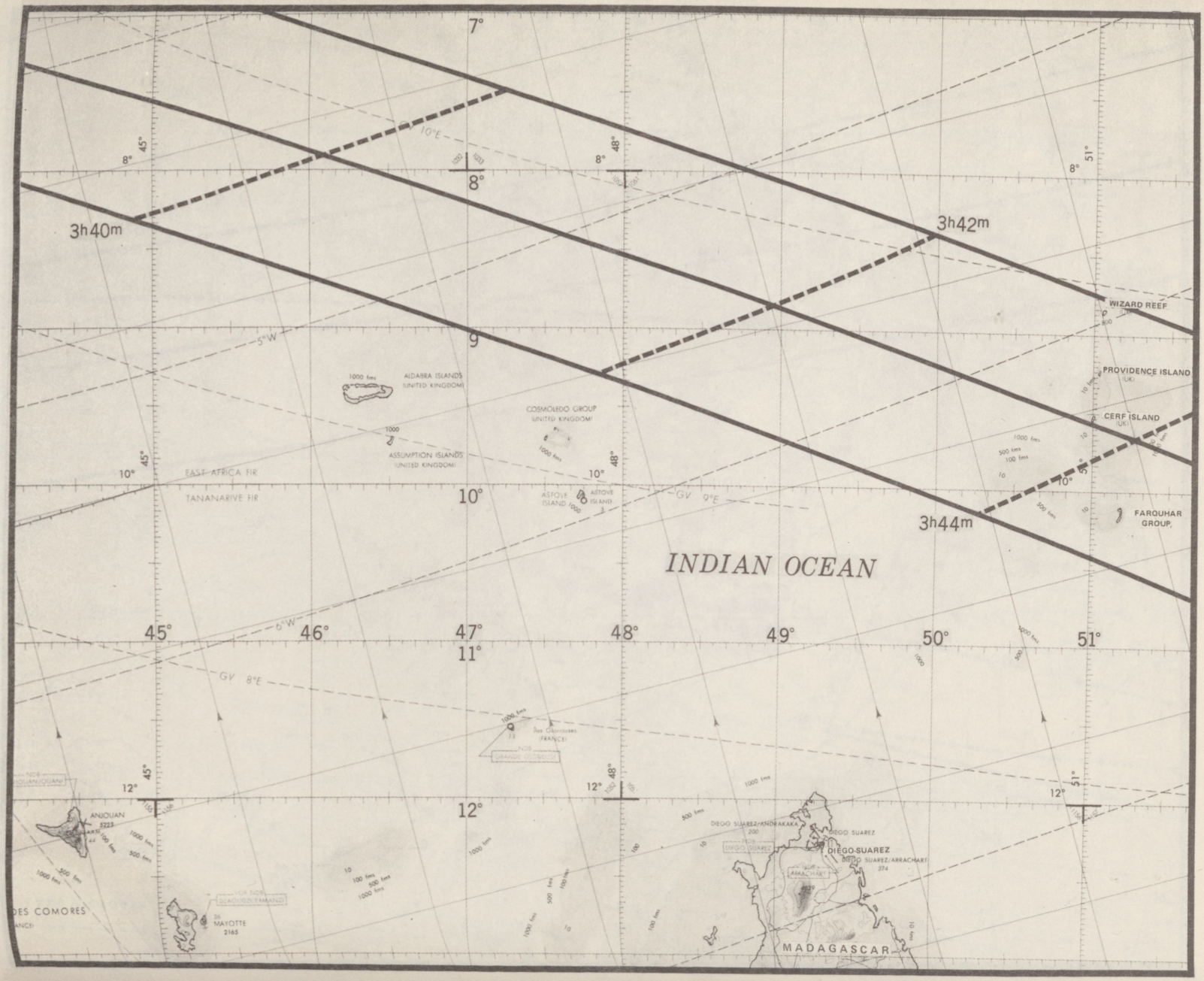
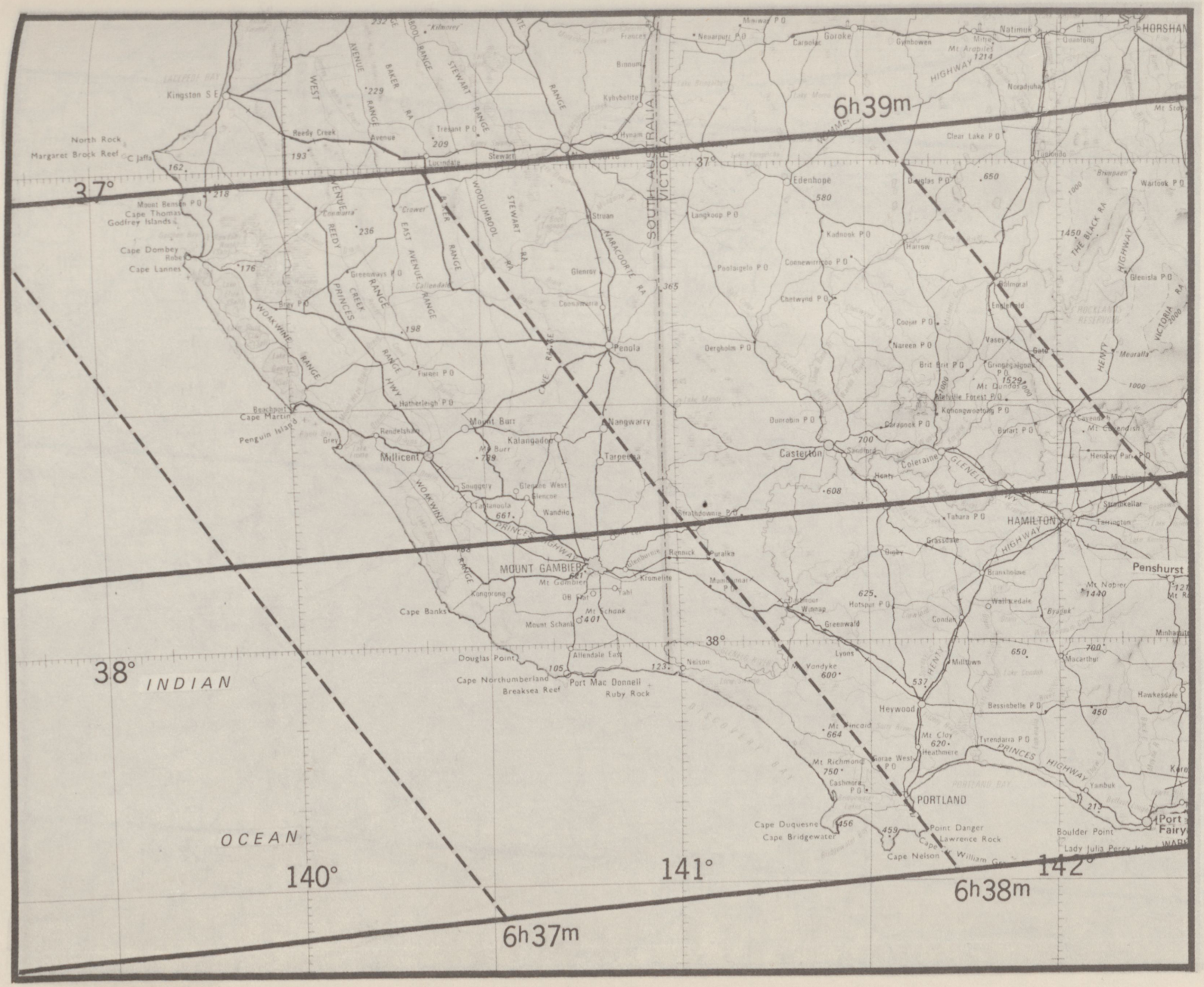
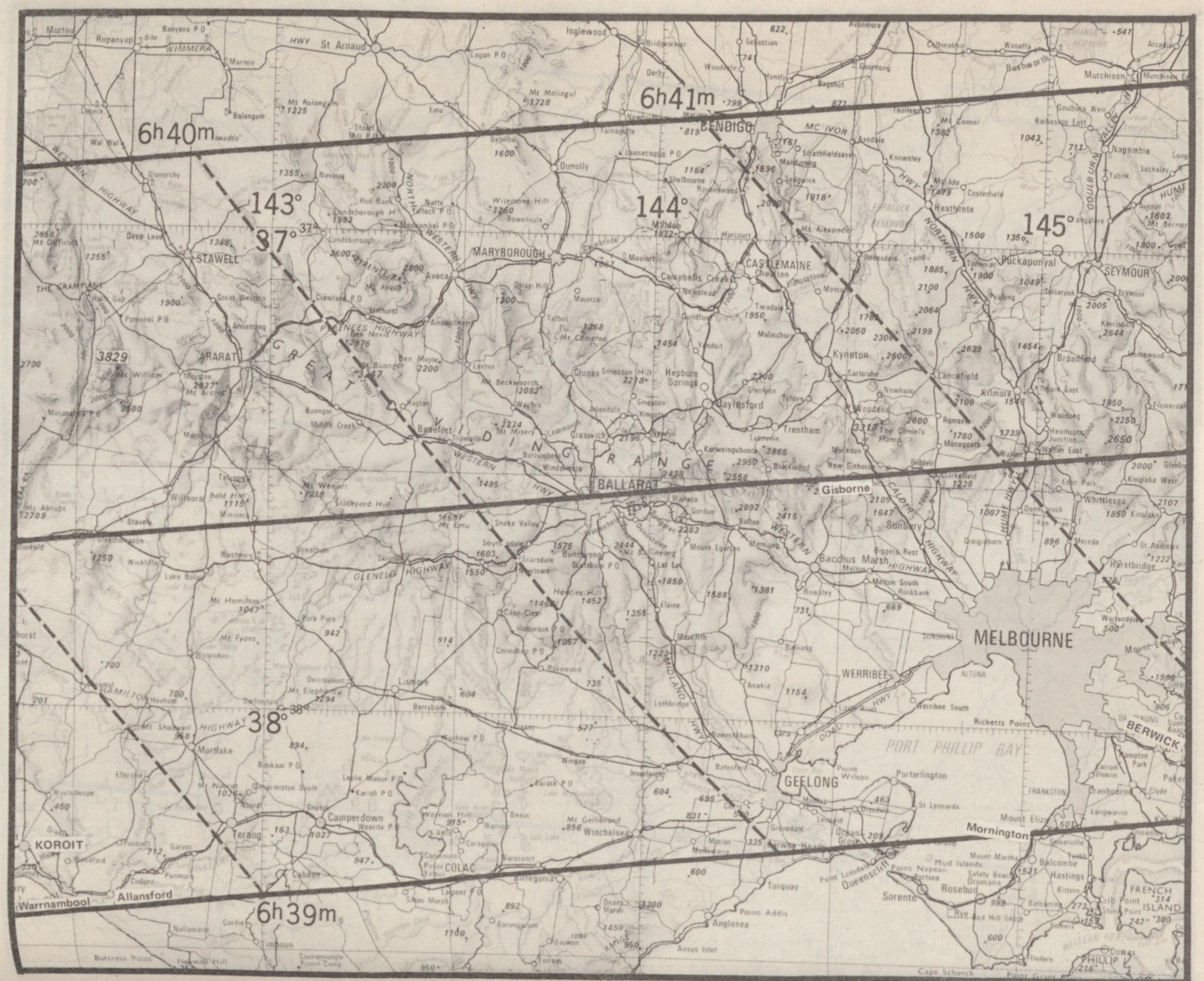
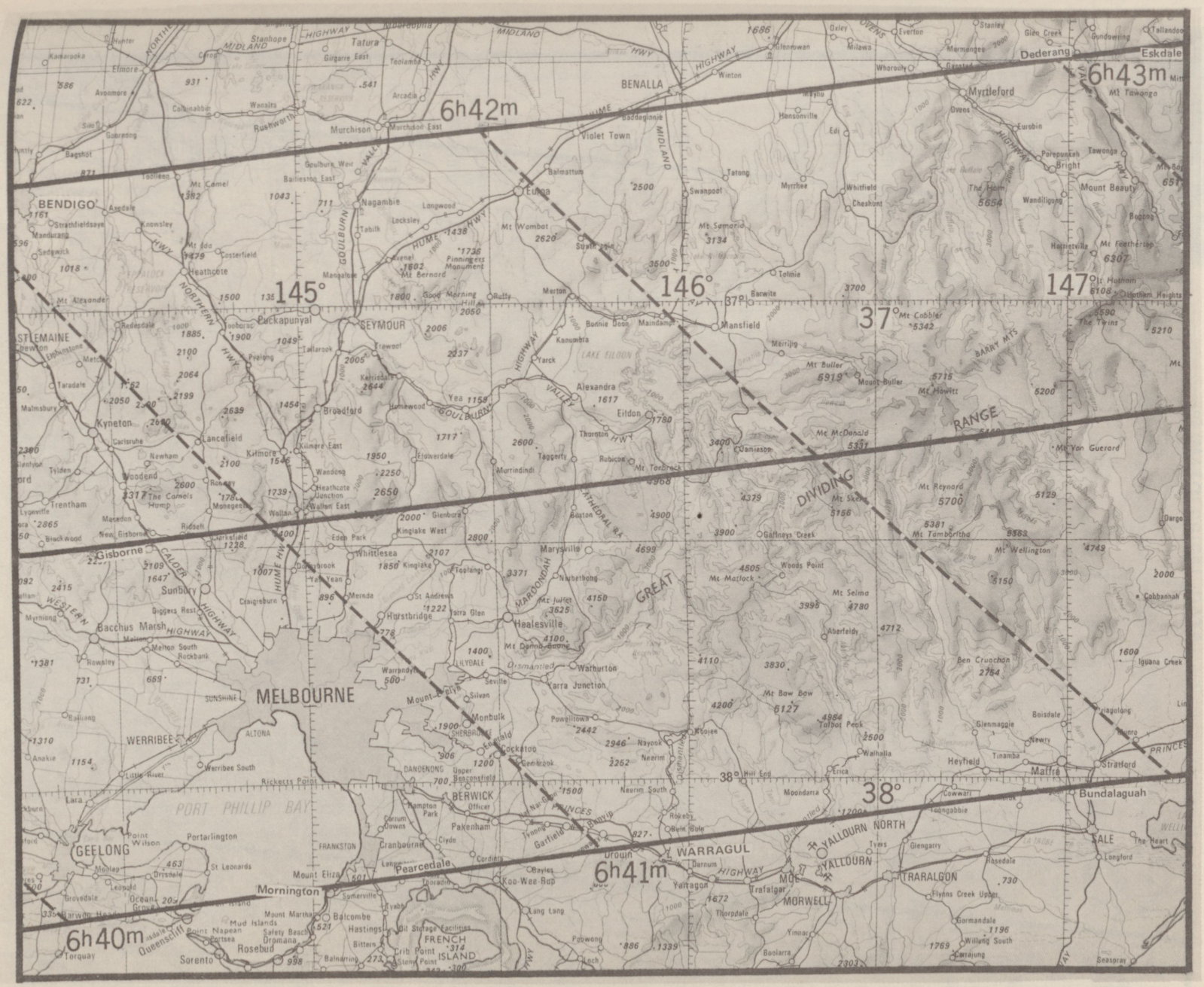
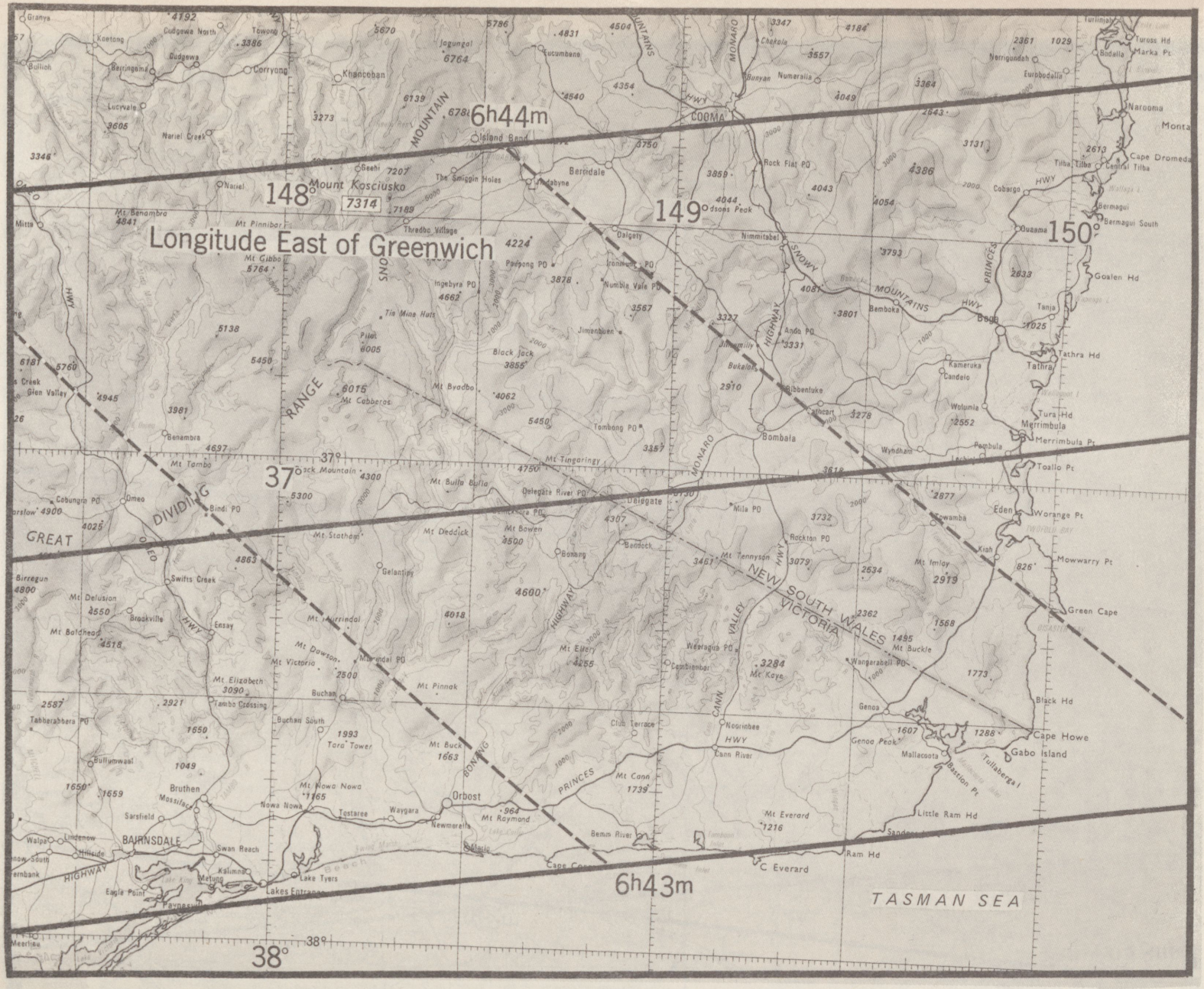

LAKE VICTORIA
NAIROBI
KILIMANJARO
MOSHI
NGORONGORO CRATER
KENYA
TANZANIA
MOMBASA
TANGA
KONDOA
TABORA
DODOMA
MKOKOTONI
ZANZIBAR
ZANZIBAR ISLAND
BAGAMOYO
DAR ES SALAAM
KILOSA
MOROGORA
3h36m
2°S
33°
34°
35°
36°
37°
38°
39°
40°


3h40m
3h42m
3h44m
INDIAN OCEAN
WIZARD REEF
PROVIDENCE ISLAND (U.K.)
CERF ISLAND (U.K.)
FARQUHAR GROUP
ALDABRA ISLANDS (UNITED KINGDOM)
COSMOLEDO GROUP (UNITED KINGDOM)
ASSUMPTION ISLANDS (UNITED KINGDOM)
ASTOVE ISLAND
ASFOVE ISLAND
EAST AFRICA FIR
TANANARIVE FIR
ANJOUAN
MAYOTTE
DIEGO-SUAREZ
DIEGO SUAREZ/ARRACHART
MADAGASCAR
7°
8°
9°
10°
11°
12°
45°
46°
47°
48°
49°
50°
51°


6h39m
6h38m
6h37m
37°
38°
140°
141°
142°
SOUTH AUSTRALIA
VICTORIA
INDIAN
OCEAN
MOUNT GAMBIER
HAMILTON
PORTLAND
Penshurst
Port Fairy
Millicent
Casterton
Penola
Edenhope
Cape Dombey
Cape Lannes
Cape Banks
Douglas Point
Cape Northumberland
Port Mac Donnell
Ruby Rock
Breaksea Reef
Cape Duquesne
Cape Bridgewater
Point Danger
Lawrence Rock
Cape Nelson
Boulder Point
Lady Julia Percy Island
Mount Burr
Nangwarry
Tarpeena
Kalangadoo
Mount Schank
Mt Gambier
Hynam
Struan
Glenroy
Langkoop P O
Kadnook P O
Harrow
Poolaigelo P O
Coonawarra
Dergholm P O
Chetwynd P O
Cooinda P O
Nareen P O
Casterton
Coleraine
Tahara P O
Grassdale
Branxholme
Hotspur P O
Greenwald
Condah
Lyons
Vondyke
Heywood
Mt Clay
Heathmere
Tyrendarra P O
Cashmore P O
Mt Richmond
Bessiebelle P O
Macarthur
Hawkesdale
Yambuk
Mt Napier
Mt Eccles
Mt Shadforth
Mt Clarence
Mt Sturgeon
Mt Rouse
Mt Abrupt
Mt Stavely
Mt Dundas
Mt Elephant
Mt Cavendish
Mt Emu Creek
Mt Noorat
Mt Leura
Mt Buninyong
Mt Warrenheip
Mt Bolton
Mt Blackwood
Mt Egerton
Mt Wallace
Mt Doran
Mt Wombat
Mt Bute
Mt Cole
Mt Langi Ghiran
Mt Difficult
Mt Cameron
Mt Arapiles
Mt Zero
Mt Stapylton
Mt Talbot
Mt Lubra
Mt Sturgeon
Mt Abrupt
Mt Rouse
Mt Stavely
Mt Dundas
Mt Elephant
Mt Cavendish
Mt Emu Creek
Mt Noorat
Mt Leura
Mt Buninyong
Mt Warrenheip
Mt Bolton
Mt Blackwood
Mt Egerton
Mt Wallace
Mt Doran
Mt Wombat
Mt Bute
Mt Cole
Mt Langi Ghiran
Mt Difficult
Mt Cameron
Mt Arapiles
Mt Zero
Mt Stapylton
Mt Talbot
Mt Lubra
Kingston S E
North Rock
Margaret Brock Reef
C Jaffa
Reedy Creek
Lucindale
Stewart
Tarpeena
Kalangadoo
Mount Burr
Millicent
Rendelsham
Beachport
Cape Martin
Penguin Island
Mount Benson P O
Cape Thomas
Godfrey Islands
Greenways P O
Furner P O
Hatherleigh P O
Snuggery
Glencoe West
Glencoe
Tantanoula
Wandilo
Kongorong
Allendale East
Nelson
Ob Flat
Krumelite
Pennick
Puralka
Wando Bridge
Wando Vale
Wando Woods
Wando Plains
Wando Park
Wando Rise
Wando Hill
Wando Valley
Wando Creek
Wando River


6h40m
6h41m
6h39m
143°
144°
145°
37°
38°
BENDIGO
MARYBOROUGH
CASTLEMAINE
STAWELL
ARARAT
BALLARAT
Gisborne
Kyneton
Daylesford
Lancefield
Kilmore
Broadford
SEYMOUR
Puckapunyal
Sunbury
Bacchus Marsh
MELBOURNE
WERRIBEE
GEELONG
Portarlington
Mornington
Rosebud
Sorento
Queenscliff
Point Lonsdale
Point Nepean
Torquay
Anglesea
Point Addis
Aireys Inlet
Cape Schanck
PORT PHILLIP BAY
FRENCH ISLAND
PHILLIP ISLAND
Warrnambool
Allansford
KOROIT
Camperdown
COLAC
Terang
Mortlake
Hamilton
Lismore
Winchelsea
Inglewood
Avoca
Maryborough
Castlemaine
Kyneton
Daylesford
Ballarat
Melton
Werribee
Geelong
Frankston
Mount Eliza
Mornington
Berwick
Cranbourne
Pakenham
Dandenong
Ringwood
Croydon
Lilydale
Warburton
Yarra Glen
Healesville
Kinglake
Whittlesea
Hurstbridge
St Andrews
Diamond Creek
Eltham
Greensborough
Heidelberg
Preston
Coburg
Brunswick
Footscray
Sunshine
Altona
Laverton
Williamstown
Port Melbourne
St Kilda
Brighton
Sandringham
Hampton
Mentone
Moorabbin
Cheltenham
Mordialloc
Chelsea
Frankston
Seaford
Carrum
Patterson Lakes
Dromana
Safety Beach
Mount Martha
Balcombe
Hastings
Somerville
Tyabb
Bittern
Crib Point
Western Highway
Hume Highway
Midland Highway
Glenelg Highway
Pyrenees Highway
Great Dividing Range
Calder Highway
Goulburn Valley Highway
Princes Highway
Western Freeway
Melbourne-Geelong Road
Melbourne-Mornington Road
Melbourne-Hastings Road
Melbourne-Warburton Road
Melbourne-Lilydale Road
Melbourne-Whittlesea Road
Melbourne-Kinglake Road
Melbourne-Broadford Road
Melbourne-Kilmore Road
Melbourne-Lancefield Road
Melbourne-Gisborne Road
Melbourne-Bacchus Marsh Road
Melbourne-Ballarat Road
Melbourne-Daylesford Road
Melbourne-Castlemaine Road
Melbourne-Bendigo Road
Melbourne-Kyneton Road
Melbourne-Seymour Road
Melbourne-Puckapunyal Road
Melbourne-Mornington Road
Melbourne-Frankston Road
Melbourne-Berwick Road
Melbourne-Pakenham Road
Melbourne-Dandenong Road
Melbourne-Ringwood Road
Melbourne-Croydon Road
Melbourne-Eltham Road
Melbourne-Greensborough Road
Melbourne-Heidelberg Road
Melbourne-Preston Road
Melbourne-Coburg Road
Melbourne-Brunswick Road
Melbourne-Footscray Road
Melbourne-Sunshine Road
Melbourne-Altona Road
Melbourne-Laverton Road
Melbourne-Williamstown Road
Melbourne-Port Melbourne Road
Melbourne-St Kilda Road
Melbourne-Brighton Road
Melbourne-Sandringham Road
Melbourne-Hampton Road
Melbourne-Mentone Road
Melbourne-Moorabbin Road
Melbourne-Cheltenham Road
Melbourne-Mordialloc Road
Melbourne-Chelsea Road
Melbourne-Frankston Road
Melbourne-Seaford Road
Melbourne-Carrum Road
Melbourne-Patterson Lakes Road
Melbourne-Dromana Road
Melbourne-Safety Beach Road
Melbourne-Mount Martha Road
Melbourne-Balcombe Road
Melbourne-Hastings Road
Melbourne-Somerville Road
Melbourne-Tyabb Road
Melbourne-Bittern Road
Melbourne-Crib Point Road


6h42m
6h43m
6h41m
6h40m
145°
146°
147°
37°
38°
BENDIGO
SEYMOUR
BENALLA
Dederang
Eskdale
Myrtleford
Bright
Mount Beauty
Mansfield
Alexandra
Eildon
Broadford
Kyneton
Gisborne
Sunbury
Bacchus Marsh
MELBOURNE
Healesville
Warburton
Yarra Junction
Woods Point
Aberfeldy
Heyfield
Maffra
Stratford
Bundalaguah
SALE
WARRAGUL
Drouin
Pakenham
Berwick
Pearcedale
Mornington
GEELONG
Portarlington
Queenscliff
Sorento
Rosebud
FRENCH ISLAND
PORT PHILLIP BAY
YALLOURN
YALLOURN NORTH
MOE
MORWELL
TRARALGON
Yallourn
Traralgon
Morwell
Moe
Mt Buller
Mt Stirling
Mt Howitt
Mt McDonald
Mt Reynard
Mt Matlock
Mt Selma
Mt Baw Baw
Ben Cruachan
Mt Wellington
Mt Tamboritha
Mt Cobbler
Mt Hotham
Mt Feathertop
Mt Tawonga
Mt Wombat
Mt Samaria
Mt Bernard
Mt Camel
Mt Alexander
Mt Torbreck
Mt Juliet
Mt Donna Buang
Mt Worth
Mt Disappointment
Mt Macedon
Mt Ida
Mt Eadon
Mt Yon Guerard
Mt Skene
Mt Taylor
Mt Worth
Mt Worth
Mt Worth


6h44m
6h43m
148°
149°
150°
37°
38°
Longitude East of Greenwich
Mount Kosciusko
7314
COOMA
BAIRNSDALE
NEW SOUTH WALES
VICTORIA
TASMAN SEA
GREAT DIVIDING RANGE
SNOWY MOUNTAINS HIGHWAY
PRINCES HWY
MONARO HIGHWAY
BONANG HIGHWAY
CANN VALLEY HWY
Delegate
Bombala
Orbost
Eden
Merimbula
Narooma
Cape Howe
Gabo Island
Green Cape
Mallacoota
Lakes Entrance
Bruthen
Swifts Creek
Buchan
Tambo Crossing
Mt Kosciusko
Mt Tingaringy
Mt Imlay
Mt Buckle
Mt Cann
Mt Everard
C Everard
Ram Hd
Little Ram Hd
Black Hd
Genoa Peak
Mt Raymond
Mt Nowa Nowa
Mt Victoria
Mt Elizabeth
Mt Pinnak
Mt Dawson
Mt Deddick
Mt Bowen
Mt Stathem
Mt Bulla Bulla
Mt Byadbo
Mt Cabberas
Mt Delusion
Mt Baldhead
Mt Hotrindal
Mt Ellery
Mt Kaye
Mt Tennyson
Mt Benambra
Mt Pinnibar
Mt Gibbo
Mt Tambo
Mt Black Mountain
Pilot
Black Jack
Island Bend
Berridale
Dalgety
Nimmitabel
Cooma
Bega
Tathra
Merrimbula Pt
Toallo Pt
Worange Pt
Mowwarry Pt
Cape Dromedia
Goalen Hd
Tura Hd
Tathra Hd
Bermagui
Bermagui South
Tuross Hd
Marka Pt
Bodalla
Eurobodalla
Moruya
Batemans Bay
Tilba Tilba
Central Tilba
Cobargo
Bemboka
Candelo
Kameruka
Wolumla
Pambula
Wyndham
Towamba
Kiah
Rocky Hall PO
Rock Flat PO
Numbla Vale PO
Ironmungy PO
Padpong PO
Ingebyra PO
Jimenbuen
Tombong PO
Delegate River PO
Mila PO
Rockton PO
Wangarabell PO
Wentagus PO
Combienbar
Club Terrace
Nooringbee
Cann River
Genoa
Tabberabbera PO
Buchan South
Tara Tower
Bullumwaal
Mossiface
Sarsfield
Nowa Nowa
Testaree
Waygara
Newmerella
Bemm River
Lake Tyers
Swan Reach
Metung
Kalimna
Eagle Point
Paynesville
Lindenow
Hillside
Walpa
Meerlieu
Glen Valley
Cobungra PO
Omeo
Bindi PO
Swifts Creek
Brookville
Essay
Gelantipy
Bonang
Benambra
Corryong
Khancoban
Towong
Cudgewa
Cudgewa North
Berringama
Bullioh
Koetong
Granya
Lucyvale
Nariel Creek
Nariel
Geehi
The Snuggin Holes
Jindabyne
Thredbo Village
Island Bend
Jagungal
Cucumbene
Chekola
Bueyan
Numaralia
Nerrigundah
Turlinjah
Tilba Tilba
Cobargo
Bermagui
Quaama
Tanja
Bemboka
Ando PO
Jimenbuen
Bukalong
Bibbenluke
Athcart
Wyndham
Towamba
Kiah
Eden
Worange Pt
Mowwarry Pt
Green Cape
Mt Buckle
Wangarabell PO
Genoa
Black Hd
Cape Howe
Gabo Island
Mallacoota
Tullaberga I
Bastion Pt
Little Ram Hd
Ram Hd
C Everard
Mt Everard
Mt Cann
Mt Raymond
Mt Nowa Nowa
Mt Victoria
Mt Elizabeth
Mt Pinnak
Mt Dawson
Mt Deddick
Mt Bowen
Mt Stathem
Mt Bulla Bulla
Mt Byadbo
Mt Cabberas
Mt Delusion
Mt Baldhead
Mt Hotrindal
Mt Ellery
Mt Kaye
Mt Tennyson
Mt Benambra
Mt Pinnibar
Mt Gibbo
Mt Tambo
Mt Black Mountain
Pilot
Black Jack
Island Bend
Berridale
Dalgety
Nimmitabel
Cooma
Bega
Tathra
Merrimbula Pt
Toallo Pt
Worange Pt
Mowwarry Pt
Cape Dromedia
Goalen Hd
Tura Hd
Tathra Hd
Bermagui
Bermagui South
Tuross Hd
Marka Pt
Bodalla
Eurobodalla
Moruya
Batemans Bay
Tilba Tilba
Central Tilba
Cobargo
Bemboka
Candelo
Kameruka
Wolumla
Pambula
Wyndham
Towamba
Kiah
Rocky Hall PO
Rock Flat PO
Numbla Vale PO
Ironmungy PO
Padpong PO
Ingebyra PO
Jimenbuen
Tombong PO
Delegate River PO
Mila PO
Rockton PO
Wangarabell PO
Wentagus PO
Combienbar
Club Terrace
Nooringbee
Cann River
Genoa
Tabberabbera PO
Buchan South
Tara Tower
Bullumwaal
Mossiface
Sarsfield
Nowa Nowa
Testaree
Waygara
Newmerella
Bemm River
Lake Tyers
Swan Reach
Metung
Kalimna
Eagle Point
Paynesville
Lindenow
Hillside
Walpa
Meerlieu
Glen Valley
Cobungra PO
Omeo
Bindi PO
Swifts Creek
Brookville
Essay
Gelantipy
Bonang
Benambra
Corryong
Khancoban
Towong
Cudgewa
Cudgewa North
Berringama
Bullioh
Koetong
Granya
Lucyvale
Nariel Creek
Nariel
Geehi
The Snuggin Holes
Jindabyne
Thredbo Village
Island Bend
Jagungal
Cucumbene
Chekola
Bueyan
Numaralia
Nerrigundah
Turlinjah

CLIMATOLOGICAL DATA

The following is a description of average weather conditions in October along the path of the 1976 eclipse.

The weather in October is often very changeable, with large variations from day to day. It ranges from warm and clear days with a temperature over 25°C to cold, overcast, windy and showery days with a temperature below 15°C.

The average daily maximum temperature in October is between 18°C and 20°C on the lowlands, but only 11°C on mountains of elevation 1500 meters.

Some rain falls on about one day in two in southern Victoria in October, but only one day in three north of the Dividing Range and on the south coast of New South Wales. Mean cloudiness at 3 p.m. is also least over these latter two areas, but throughout the path, on average, the sky is more than half covered with cloud on October afternoons.

The following table gives the means of some meteorological elements for several places in the path of the eclipse.

	Mean Maximum Temperature (°C)	Mean Monthly Rainfall (mm)	Mean Number Days of Rain	Mean Cloudiness 3 p.m. (eighths of sky covered)
Mt. Gambier	18.3	64	16	5.4
Hamilton	17.6	66	17	6.0
Warrnambool	17.2	62	16	5.0
Ballarat	16.6	69	17	6.1
Ararat	18.0	61	15	5.2
Bendigo	20.4	52	12	5.4
Melbourne	19.6	67	14	5.4
Geelong	19.3	52	14	5.1
Euroa	20.4	62	10	–
Alexandra	20.3	72	12	–
Mt. Buffalo	10.9	193	–	–
Mt. Beauty	18.6	135	–	4.8
Omeo	18.5	72	13	4.9
Bairnsdale	19.6	68	14	4.8
Orbost	19.5	79	12	5.3
Bombala	19.0	55	11	–
Bega	–	66	9	4.4
Cooma	19.7	49	10	4.8
Moruya Heads	19.6	72	10	4.6